

# **DUKE ENERGY CAROLINAS ELECTRIC COST OF SERVICE**

The purpose of a cost of service study is to determine the cost of serving each customer class. This enables rates to be designed to recover those costs. There are three overall steps to performing a cost of service study: functionalization, classification and allocation. Each of these steps involves the direct assignment or allocation of costs. The Carolinas electric cost of service study follows National Association of Regulatory Commission ("NARUC") cost allocation principles as set forth in the NARUC "Electric Utility Cost Allocation Manual".

In the first step, functionalization, costs (i.e., revenue requirements) are functionalized to production, transmission, distribution, and customer. In most cases, costs are already functionalized by FERC account. However, certain costs, such as general & common plant and Administrative & General expense are not functionalized by FERC account and have to be allocated (i.e., functionalized) to production, transmission, distribution and customer.

In the second step, each of the functionalized cost categories are classified as (and allocated based on) demand, energy, and customer. Demand costs are typically fixed costs that vary with KW demand. Most production costs and transmission costs

are demand related, for example. Certain distribution costs, such as substations, are demand related. Energy costs, on the other hand, are variable costs or costs that vary with KWH or energy usage (cost of fuel is energy related). Customer costs are those costs that are directly related to the numbers of customers served, such as meter reading and billing.

In the third and last step, each of the demand, energy and customer costs are allocated to customer class.

Once the study is completed, the return earned by the company during the study period is identified. This return is shown at the customer class level. The cost by customer class information is then used by the rate design group so that rates can be designed for each customer class.

The Cost of Service Manual describes how the accounting data is compiled and represented in the Cost of Service Study.

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## **Section 1: Jurisdictions and Customer Classes**

### **Jurisdictions:**

Total System = NC Total & SC Total

NC Total = NC Retail & NC Wholesale

SC Total = SC Retail & SC Wholesale

### **Retail Rate Classes:**

Residential, General, Outdoor Lighting, Industrial, and  
Optional Power

### **Residential Schedules:**

RS-1

RE-1 (Residential all electric)

### **General Schedules:**

SGS (Small general service - less than 75 kw)

LGS (Large General Service - more than 75 kw)

### **Outdoor Lighting Schedules:**

OL (Outdoor Lighting)

PL (Public Lighting)

GL (Governmental Lighting)

TS (Traffic Signals)

### **Industrial Schedules:**

I (Industrial)

**Optional Power Schedules (OPT):**

OPT\_G

OPT\_H

OPT\_I

**Wholesale Schedules:**

Such as: Schedules 10a, Catawba, NCEMC, Haywood, Greenwood  
Municipality, BPM, NCMPA B.Stand, Blueridge, Piedmont,  
Rutherford, etc.

## **Section 2.1: COSS Summary of Results**

The Summary of Results is the COSS summary of Electric Operating Revenue, Revenue Deductions, and Rate Base. Below are the line items which make up this summary and on what schedules to find the supporting detail.

### **TOTAL RATE BASE:**

Gross Electric Plant In Service	- Schedule 2
Less Depreciation Reserve	- Schedule 3
Plus Rate Base Adjustments	- Schedule 5

### **TOTAL OPERATING REVENUE**

Billed Revenue	- Schedule 11
Total Other Operating Revenue	- Schedule 10

### **OPERATING EXPENSES:**

Total Operating & Maintenance (O&M) Expense	- Schedule 6
Total Depreciation Expense	- Schedule 7
Total Other Tax & Misc. Expense	- Schedule 8
Net Current & Deferred State & Fed Income Tax	- Schedule 9
Other Adjustments	- unused
Investment Tax Credit Amortization	- Schedule 9
Interest on Customer Deposits	- Schedule 9

### **TOTAL OPERATING EXPENSE:**

Sum of operating expenses listed above

<b>RETURN ON RATE BASE</b>	- Schedule 5
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### **TOTAL ELECTRIC COST OF SERVICE:**

Operating expenses  
Plus return on rate base

### **EXCESS REVENUES:**

Total Operating revenue  
Less Total Electric Cost of Service

### **TOTAL RETURN EARNED:**

Return on Rate Base  
Plus excess revenues

### **RATE OF RETURN EARNED ON RATE BASE:**

Total Return Earned divided by Total Rate Base

## **Section 2.2: Gross Plant in Service**

### **PRODUCTION PLANT (FERC 310 - 346):**

- **CONTRA AFUDC:**

Step 1: Totals for Contra AFUDC for each state jurisdiction that approved recovery of CWIP come from Regulatory Accounting and are allocated on Factor 1 (Peak Demand) to the customer classes.

Note: Based on the Cost of Service Methodology (CP, SWPA, etc.), determines what amount of production plant is to be allocated on demand vs. energy. When doing a SWPA study, the 1 CP allocator will change to be a demand-energy weighted ratio.

Background information: The Contra AFUDC amounts here (and throughout the study) give the appropriate Retail ratepayers credit for the time when CWIP was earning a return as part of that jurisdiction's rate base. The net effect of using Contra AFUDC throughout the study is to lower the appropriate Retail jurisdictions and customer class's revenue requirement.

- **ALLOCATED-DEMAND:**

Step 1: System totals from Regulatory Accounting are input into the COSS Model and allocated on Factor 1 (Peak Demand) to the customer classes.

- **ALLOCATED-ENERGY:**

Step 1: Input any energy portion into the COSS Model to be allocated on Factor 5 (MWH at Generation Level).

- **CLEAN AIR:**

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 1 (Peak Demand) to the customer classes.

- DEMAND SOLAR:

Step 1: System totals from Regulatory Accounting are input into the COSS Model and allocated on Factor 1 (Peak Demand) to the customer classes.

- PRODUCTION - DIRECT DEMAND SOLAR

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 1 (Peak Demand).

- PRODUCTION - DIRECT DEMAND SOLAR

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 68 (WTD Cust).

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL PRODUCTION PLANT IN SERVICE** - Sum of Production Plant items above.

**NUCLEAR FUEL MATERIALS (FERC 122.2, 120.3, 120.4):**

- IN STOCK -

Step 1: The system total from Regulatory Accounting is input into the COSS Model and allocated on Factor 5 (MWH at Generation Level).

- IN REACTOR -

Step 1: The system total from Regulatory Accounting is input into the COSS Model and allocated on Factor 5 (MWH at Generation Level).

- **SPENT FUEL** -

Step 1: The system total from Regulatory Accounting is input into the COSS Model and allocated on Factor 5 (MWH at Generation Level).

- **PROFORMA(S)** -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL** - Sum of Nuclear Fuel Materials above.

- **TOTAL PRODUCTION PLANT INCLUDING NUCLEAR FUEL** - Sum of Production Plant and Nuclear Fuel above.

**TRANSMISSION PLANT** (FERC 350-359):

- **CONTRA AFUDC** -

Step 1: Totals for Contra AFUDC for each state jurisdiction that approved recovery of CWIP come from Regulatory Accounting and are allocated on Factor 2 (Transmission Demand) to the customer classes.

- **DIRECT** -

Step 1: Record any amounts directly assignable. Most Transmission direct assignment is identified with the Extra Facilities investments (see explanation below).

Background information: Cost Studies keep monthly records of Extra Facilities revenue by rate schedule and type of delivery. From these scheduled, we are able to follow the steps below (Done in the Exfac input file) to arrive at the related investments:

Step 1: Calculate the total revenue during the final month of the given test period.

Step 2: Divide the Step 1 total by the Extra Facilities rate to arrive at a total investment.

Step 3: Distribute the Step 2 total to all rate schedules based on their Extra Facilities revenue by type of delivery (Transmission or Distribution).

Step 4: Distribute the total plant investment for each rate schedule among the various transmission and distribution accounts based on percentages given to us by Distribution Engineering. For Accounts 362, 364-368, and 370, Step 4 yields a direct assignment which has both a Transmission component and a Distribution component. These components must be combined before being directly assigned.

- TRANSMISSION - OTHER -

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 2 (Transmission Demand).

- ALLOCATED -

Step 1: Determine the Allocable portion by identifying total plant excluding the amounts direct assigned.

Step 2: Allocate the Balance determined in step 1 using Factor 2 (Transmission Demand).

- TRANSMISSION - OTHER -

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 2 (Transmission Demand).

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TRANSMISSION PLANT IN SERVICE** - Sum of Transmission Plant items above.

**DISTRIBUTION PLANT (FERC 360 - 373):**

- **CONTRA AFUDC:**

Step 1: State totals for retail from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 8 (DistPlt).

- **LAND & LAND RIGHTS - DIRECT (FERC 360):**
- **STRUCTURES & IMPROVEMENTS - DIRECT (FERC 361):**
- **STATION EQUIPMENT - DIRECT (FERC 362):**
- **POLES, TOWERS & FIXTURES - DIRECT (FERC 364):**
- **OVERHEAD CONDUCTORS & DEVICES - DIRECT (FERC 365):**
- **LINE TRANSFORMERS - DIRECT (FERC 368):**

Step 1: Obtain location codes from Asset Accounting. Identify joint use stations with Wholesale Accounts and input correct percentage allocations to wholesale. (See Excel file Distplt).

Step 2: Using online PRS (Property Reporting System) from Asset Accounting, post figures for each location code to station accounts 360 - 362.

Step 3: The Wholesale Distribution Plant worksheet will calculate joint-use facilities with wholesale for Accounts 360 - 365 and 368.

Step 4: Obtain the investment in Outdoor lighting (OL) by state from Asset Accounting. This becomes part of the direct assignment for FERC accounts 364 and 365.

Step 5: Input Account 370 information from Power Delivery.

Step 6: Wholesale Distribution Plant worksheet will summarize steps 1-5, yielding direct assignments for Resale customers.

- **UNDERGROUND CONDUIT - DIRECT (FERC 366):**
- **UNDERGROUND CONDUCTORS & DEVICES - DIRECT (FERC 367):**

- Step 1: Investment in OL (Outdoor lighting) is direct charged. Investment totals are received from Asset Accounting by state.
- Step 2: Investment in extra facilities is direct assigned. See the transmission plant - direct charge section for how to direct assign extra facilities.
- Step 3: Combine Steps 1 & 2 to arrive at the direct assignment to input.

- POLES, TOWERS & FIXTURES - MINIMUM SYSTEM (FERC 364):
- OVERHEAD CONDUCTORS & DEVICES - MINIMUM SYSTEM (FERC 365):
- LINE TRANSFORMERS - MINIMUM SYSTEM (FERC 368):

- Step 1: Obtain from Power Delivery the line statistics (# of miles of poles, lines, etc.) for these accounts along with an average cost per mile.
- Step 2: Discount the average cost per mile using the average age of plant, (supplied by Asset Accounting), and the Handy-Whitman Index.
- Step 3: Multiply the adjusted average cost per mile by the number of miles to arrive at the totals to be input into the COSS Model. FERC 364 and 365 are allocated to class on Factor 26 - Retail Distribution Bills (excluding OL). FERC 368 is allocated to class on Factor 25 - Retail Average Bills (excluding OL).

Background information: The minimum system concept (used in the NC COSS only) is defined as the smallest amount of distribution plant needed if all customers were to simultaneously place their smallest measurable loads on the system. In Accounts 364, 365, and 368 we assign a portion of distribution plant to the number of customers on the system. In SCPSC Docket No. 91-216-E dated 11/18/91, the SC Commission eliminated the Minimum System Concept from their cost of service study.

- LAND & LAND RIGHTS - ALLOCATED (FERC 360):

- STRUCTURES & IMPROVEMENTS - ALLOCATED (FERC 361):
- STATION EQUIPMENT - ALLOCATED (FERC 362):
- POLES, TOWERS & FIXTURES - ALLOCATED (FERC 364):
- OVERHEAD CONDUCTORS & DEVICES - ALLOCATED (FERC 365):
- UNDERGROUND CONDUIT - ALLOCATED (FERC 366):
- UNDERGROUND CONDUCTORS & DEVICES - ALLOCATED (FERC 367):
- LINE TRANSFORMERS - ALLOCATED (FERC 368):

Step 1: Subtract the total direct assignment and the total minimum system amount from the total amount.

Step 2: The result of Step 1 is the amount to be input and for FERC 360-362 and FERC 368 are allocated on Factor 4 (Non-coincident Peak). FERC 364-367 are allocated on Factor 3 - (Distribution Non-coincident Peak). If an allocated FERC account is a negative number, then allocated row would use the same allocator as the applicable minimum system row.

- SERVICES - DIRECT (FERC 369):

Step 1: Investment in extra facilities is direct assigned. Refer to Steps above for "LAND & LAND RIGHTS - ALLOCATED (FERC 360)" to determine the direct assignment for Wholesale and Extra Facilities.

- SERVICES - ALLOCATED (FERC 369):

Step 1: Subtract the total direct assignment from the total amount.

Step 2: The result of Step 1 is the amount to be input and allocated on Factor 28 - (distribution engineering allocation).

- METERS - DIRECT (FERC 370):

Step 1: Average investment of a production and transmission meter (supplied by Power Delivery) is multiplied by the number of Transmission Meters to arrive at the direct assignment to P&T customers.

Step 2: Refer to Steps above for "LAND & LAND RIGHTS - ALLOCATED (FERC 360)" to determine the direct assignment for Wholesale and Extra Facilities.

Step 3: Combine Steps 1 & 2 to arrive at the direct assignment to input.

- **METERS - ALLOCATED (FERC 370):**

Step 1: Subtract the total direct assignment from the total amount.

Step 2: The result of Step 1 is the amount to be input and allocated on Factor 29 - distribution engineering allocation (average customer \* an identified cost per meter).

- **INSTALLATIONS ON CUSTOMER PREMISES - DIRECT (FERC 371):**

Step 1: Refer to Steps above for "LAND & LAND RIGHTS - ALLOCATED (FERC 360)" to determine the direct assignment for Wholesale and Extra Facilities.

Step 2: Investment in OL (Outdoor lighting) is direct charged. Investment totals are received from Asset Accounting by state.

Step 3: Obtain the investment in RA House Panels from Asset Accounting by state.

Step 4: Combine Steps 1 - 3 to arrive at the direct assignment to input.

- **INSTALLATIONS ON CUSTOMER PREMISES - ALLOCATED (FERC 371):**

Step 1: Subtract the total direct assignment from the total amount. Generally, the remaining portion of Account 371 represents Load Control Devices.

Step 2: The result of Step 1 is the amount to be input and allocated on Factor 1 - (Peak Demand).

- **STREET LIGHTS - DIRECT (FERC 373):**

Step 1: Investment totals are received from Asset Accounting by state

Step 2: Using Non-coincident demands as a factor, split the state totals to Schedule GL, PL and Schedule TS.

- **DISTRIBUTION PLANT PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **DISTRIBUTION PLANT IN SERVICE -** Sum of Distribution Plant items above.

**GENERAL & INTANGIBLE PLANT:**

- **PRODUCTION - DEMAND**

Step 1: Determine General plant related to Production from accounting system records. Allocated on Factor 1 - (Peak Demand).

- **PRODUCTION - ENERGY**

Step 1: Determine General plant related to Production from accounting system records. Allocated on Factor 5 - (MWH at Generation Level)

- **TRANSMISSION -**

Step 1: Determine General plant related to Transmission from accounting system records. Allocated on Factor 2 - (Transmission Demand).

- **DISTRIBUTION -**

Step 1: Determine General plant related to Distribution from accounting system records. Allocated on Factor 8 - (Distribution Plant).

- GENERAL PLANT - CONTRA AFUDC:

Step 1: State totals for retail from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 10 (GenPlt).

- DISTRIBUTION - INTANGIBLE PLANT -

Step 1: Determine General plant related to Distribution - Intangible plant from accounting system records. Allocated on Factor 21 - (Average Bills).

- INTANGIBLE PLANT - CONTRA AFUDC:

Step 1: State totals for retail from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 10 (GenPlt).

- WAGES & SALARIES RELATED -

Step 1: Determine General plant related to Wages & Salaries from accounting system records. Allocated on Factor 59 - (Wages & Salaries excluding A&G).

- CUSTOMER ACCOUNTING -

Step 1: Determine General plant related to Customer Accounting from accounting system records. Allocated on Factor 34 - (Customer Records & Collections Expense - FERC account 903).

- MISC GENERAL PLANT -

Step 1: Determine remaining general plant. Allocated on Factor 15 - (allocation of the total General Plant items identified above).

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **GENERAL & INTANGIBLE PLANT IN SERVICE** - Sum of General Plant items above.
- **GROSS ELECTRIC PLANT IN SERVICE** - Sum Production, Transmission, Distribution and General & Intangible Plant items above.

### **Section 2.3: Accumulated Depreciation**

#### **PRODUCTION PLANT DEPRECIATION RESERVE (FERC 108):**

- **CONTRA AFUDC:**

Step 1: Totals for Contra AFUDC for each state jurisdiction that approved recovery of CWIP come from Regulatory Accounting and are allocated on Factor 1 (Peak Demand) to the customer classes.

Background information: See Contra AFUDC note under Production Plant.

- **ALLOCATED-DEMAND:**

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 1 (Peak Demand) to customer classes.

- **ALLOCATED-ENERGY:**

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 5 (MWH at Generation Level).

- **CLEAN AIR:**

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 1 (Peak Demand) to the customer classes.

- **PRODUCTION - DEMAND SOLAR:**

Step 1: System totals from Regulatory Accounting are input into the COSS Model and allocated on Factor 1 (Peak Demand) to the customer classes.

- PRODUCTION - DIRECT DEMAND SOLAR:

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 1 (Peak Demand).

- PRODUCTION - DIRECT DEMAND SOLAR

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 68 (WTD\_Cust).

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- TOTAL PRODUCTION DEPRECIATION RESERVE:

Sum of Production Plant Depreciation Reserve items above.

- NUCLEAR FUEL BURNED (FERC 120.5)

Step 1: The system total from Regulatory Accounting is input and allocated on Factor 5 (MWH at Generation Level).

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL PRODUCTION DEPRECIATION RESERVE INCLUDING NUCLEAR FUEL**  
- Sum of Production Depreciation and Nuclear Burned

## **TRANSMISSION PLANT DEPRECIATION RESERVE (FERC 108):**

- **CONTRA AFUDC -**

Step 1: Totals for Contra AFUDC for each state jurisdiction that approved recovery of CWIP come from Regulatory Accounting and are allocated on Factor 2 (Transmission Demand) to the customer classes.

- **TRANSMISSION - DIRECT**

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 67 (Extra Facilities-Trans).

- **TRANSMISSION - OTHER**

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group Factor 2 (Transmission Demand).

- **TRANSMISSION ALLOCATED -**

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 2 (Transmission Demand).

- **TRANSMISSION - OTHER**

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group Factor 2 (Transmission Demand).

- **PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL TRANSMISSION DEPRECIATION RESERVE -** Sum of Transmission Depreciation Reserve items above.

## **DISTRIBUTION PLANT DEPRECIATION RESERVE (FERC 108):**

- **CONTRA AFUDC -**

Step 1: Totals for Contra AFUDC for each state jurisdiction that approved recovery of CWIP come from Regulatory Accounting and are allocated on the respective State Distribution Plant totals.

- **DIRECT/ALLOCATED/MINIMUM SYSTEM -**

Step 1: Each State's FERC Account total is allocated between direct/allocated/minimum-system classifications based on the respective State Distribution Plant totals. This is a formula in the COSS Model not an allocator from the allocators tab.

Background information: Since there is not a split within each FERC account for direct, allocated and, if applicable, minimum system, each FERC account is split based on distribution plant by state.

- **TOTAL DISTRIBUTION DEPRECIATION RESERVE -** Sum of Distribution Depreciation Reserve items above.

## **GENERAL & INTANGIBLE PLANT DEPRECIATION RESERVE (FERC 108):**

- **GENERAL PLANT ALLOCATED -**

Step 1: The system total is input and allocated on Factor 10 (General Plant).

- **GENERAL PLANT DIRECT -**

Step 1: The state direct total is input and allocated on Factor 10 (General Plant).

- **GENERAL PLANT CONTRA AFUDC -**

Step 1: The state direct total is input and allocated on Factor 10 (General Plant).

- GENERAL PLANT PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined

- INTANGIBLE PLANT CONTRA AFUDC -

Step 1: The state direct total is input and allocated on Factor 10 (General Plant).

- INTANGIBLE PLANT - DIRECT -

Step 1: This direct assignment captures the components for Intangible Plant Accumulated Depreciation. The system total for each function is determined using inputs from Asset Accounting. The allocator is determined based on a review of intangible plant items. For example, Production demand related is allocated to rate schedules on Factor 1 (Demand at Generation Level), Transmission on Factor 2 (Demand at Transmission Level), Distribution on Factor 21 (Average Customer), and Wages & Salaries on the most recent Factor 59 (Wages & Salaries excluding A&G).

Step 2: The sum of Step 1 items becomes the direct assignment.

- INTANGIBLE PLANT PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined

- **TOTAL GEN & INTANGIBLE DEPRECIATION RESERVE - Sum of the General and** Intangible depreciation reserves items above.
- **TOTAL DEPRECIATION RESERVE** - Sum Production, Transmission, Distribution and General & Intangible Depreciation Reserve.

## **Section 2.4: Net Plant In Service**

### Schedule 4:

Displays each plant line item at its net value. It is calculated by taking Gross Electric Plant In Service minus Depreciation Reserve for each functional line item.

### Schedule 4a:

Displays a summary by function showing the total functional gross plant, the total functional depreciation reserve and the functional net total.

## **Section 2.5: Other Rate Base Items**

### **ACCUMULATED DEFERRED TAX ITEMS:**

(FERC 190, 281 - 283)

- ALLOCATED - Net Plant

Step 1: The system total excluding direct assignments is input and allocated on Factor 62 (Net Plant including Nuclear Fuel excluding proformas).

- DIRECT - Energy Related
- DIRECT - Demand Related

Step 1: Any reserves which require direct assignment to a rate class are entered here. If an allocator is required it will be assigned based on items being allocated.

- OTHER & CLEAN AIR - Demand Related

Step 1: The system total excluding direct assignments is input and allocated on Factor 1 (Peak Demand).

- DEFERRED TAX - Energy Related

Step 1: The system total excluding direct assignments is input and allocated on Factor 6 (MWH Sales).

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL ACCUM DEF TAXES** - Sum of Allocated and Direct items listed above.

### **RESERVES (FERC 228,228,242):**

- RESERVES -
  - PRODUCTION - Factor 1 (Peak Demand)
  - TRANSMISSION - Factor 2 (Transmission Peak)
  - DISTRIBUTION - Factor 8 (Distribution Plant)
  - GENERAL - Factor 10 (General Plant)

- OTHER - Factor 62 (Net Plant incl Nuclear Fuel ex proformas)
- DEMAND RELATED - Factor 1 (Peak Demand)
- ENERGY RELATED - Factor 5 (MWH at Generation Level) or Factor 6 (MWH Sales)
- SALARY & WAGE RELATED - Factor 59 - (Wages & Salaries ex A&G)

Step 1: The System/State totals from Regulatory Accounting related to each function are input into the COSS and allocated as shown above.

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined

- **TOTAL RESERVES** - Sum of Reserve Items.
- **TOTAL ACC DEFERRED TAXES & RESERVES** - Sum of Accumulated Deferred Taxes and Reserve Items above.

#### **CUSTOMER DEPOSITS (FERC 235):**

- ALLOCATED -

Step 1: State totals provided by Accounting are allocated to rate schedules based on a Sample Charge off Report from Customer Accounting. The Sample Charge off Report is separated by rate schedules on a system basis and represents uncollectible accounts from Greensboro, Charlotte, and Greenville. The allocator is Factor 65 (Sample Charge Off).

- ALLOCATED -

Step 1: Any totals not direct assigned are input here and allocated on Factor 38 (Revenue from Retail Sales).

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL CUSTOMER DEPOSITS** - Sum of Customer Deposits above.

#### **LAND HELD FOR FUTURE USE (FERC 105):**

Background information: Currently only South Carolina allows for the inclusion of this item in rate base.

- PRODUCTION - Factor 1 (Peak Demand)
- TRANSMISSION - Factor 2 (Transmission Peak)
- DISTRIBUTION - Factor 8 (Distribution Plant)
- GENERAL - Factor 10 (General Plant)
- OTHER - Factor 62 (Net Plant including Nuclear Fuel and excluding proformas)
- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL LAND HELD FOR FUTURE USE** - Sum of Future Use items above.

#### **CONSTRUCTION WORK IN PROGRESS [CWIP] (FERC 107):**

- PRODUCTION - Factor 1 (Peak Demand)
- TRANSMISSION - Factor 2 (Transmission Peak)
- DISTRIBUTION - Factor 8 (Distribution Plant)
- GENERAL - Factor 10 (General Plant)

Background information: If CWIP is approved in a rate case proceeding (or if there is Nuclear CWIP approved in SC) the amount of approved CWIP would be entered here until the CWIP is closed to plant in service.

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL CONSTRUCTION WORK IN PROGRESS** - SUM of CWIP items above
- **TOTAL ADDITIVE & SUBTRACTIVE ADJUSTMENTS** - Sum of Total Deferred, Reserves, Customer Deposits, Land Held for Future Use and Construction Work in Progress items above.

- **TOTAL RATE BASE EXCLUDING WORKING CAPITAL** - Total Electric Plant in Service plus Total Additive & Subtractive Adjustments.

**WORKING CAPITAL:**

**FUEL INVENTORIES (FERC 151):**

- **COAL** -  
 Step 1: System total from Accounting is input and allocated on Factor 5 (MWH at Generation Level).
- **OIL** -  
 Step 1: The system total from Accounting is input and allocated on Factor 5 (MWH at Generation Level).
- **PROFORMA(S)** -  
 Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.
- **TOTAL FUEL STOCK** - Sum of Fuel Stock items above

**MATERIALS & SUPPLIES (FERC 154 - 163):**

- **PRODUCTION** - Factor 1 (Peak Demand)
- **TRANSMISSION** - Factor 2 (Transmission Peak)
- **GENERAL**- Factor 10 (General Plant).
- **EMISSION ALLOWANCE INVENTORY** - Factor 5 (MWH at Generation Level)
- **RENEWABLE ENERGY CREDITS** - Factor 5 (MWH at Generation Level)  
 Step 1: System and/or State totals are determined by an M&S analysis and are allocated as indicated above.
- **DISTRIBUTION DIRECT** -
- **DISTRIBUTION ALLOCATED** -

Step 1: Direct assign M&S for Schedules GL, PL and OL (supplied by Asset Accounting) based on luminary information from Power Delivery Department.

Step 2: Subtract the total direct assignment from the function total determined by an M&S analysis. This balance is allocated on Factor 9 (Distribution Plant excluding GL, PL and OL).

- **M&S PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL MATERIALS AND SUPPLIES** - Sum of Material & Supplies items above.

- **TOTAL M&S AND FUEL STOCK** - Sum of M&S, Fuel Stocks.

**PREPAYMENTS (FERC 165):**

- O&M EXP- Factor 41 (O&M ex Fuel, Purchase Power, & A&G adjusted to exclude 10A amounts)
- PREPAYMENTS ALLOCATED - Factor 1 (Peak Demand)
- PRODUCTION - Factor 1 (Peak Demand)
- TRANSMISSION - Factor 2 (Transmission Peak)
- DISTRIBUTION - Factor 8 (Distribution Plant)
- GENERAL - Factor 10 (General Plant)
- NET EPIS - Factor 16 (Net Plant)

Step 1: The System totals from Regulatory Accounting related to each function are input into the COSS and allocated as shown above.)

- **OTHER -**

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 5 (MWH at Generation Level).

- **PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL PREPAYMENTS** - Sum of Prepayment items above.

**CASH WORKING CAPITAL [CWC] (FERC 131-135):**

- **BOND PREMIUMS - ALLOCATED**

Step 1: The system total from Accounting is input and allocated on Factor 45 (Rate Base excluding CWIP).

- **BOND PREMIUMS -**

Step 1: The state total from Accounting is input and allocated on Factor 44 (Rate Base including CWIP).

- **SPECIAL DEPOSITS & WORKING FUNDS -**

Step 1: The system total from Accounting is input and allocated on Factor 45 (Rate Base excluding CWIP).

- **OTHER CASH REQUIREMENT - ALLOCATED -**
- **OTHER CASH REQUIREMENT - ALLOCATED -**

Step 1: Direct assignment of "other cash requirements" by State and to retail and wholesale is determined by analysis and then allocated to class on Factor 44 (Rate Base including CWIP).

Step 2: Any remaining cash requirement after direct assignment in Step 1 is input and allocated on Factor 48 (O&M excluding Nuclear Fuel and Purchase Power).

- **WORKING CAPITAL PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **LESS: AVERAGE TAX ACCRUAL -**

Step 1: Distribute the Retail and Wholesale portions determined by analysis to rate schedules on Retail Factor 48c (O&M excluding A&G).

- LESS: AVERAGE TAX ACCRUAL PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **CASH WORKING CAPITAL** - Sum of Cash Working Capital items above.

**DEFERRED ITEMS RELATED TO (FERC 181-188, 252, AND 253):**

- PRODUCTION PLANT - Factor 1 (Peak Demand)
- TRANSMISSION PLANT- Factor 2 (Transmission Demand)
- DISTRIBUTION PLANT - Factor 8 (Distribution Plant)
- GENERAL PLANT - Factor 10 (General Plant)
- NET PLANT RELATED - Factor 62 (Net Plant incl Nuclear Fuel)
- WAGES & SALARIES - Factor 59 (Wages and Salaries excl A&G)
- PENSION & VOP COSTS - Factor 59 (Wages and Salaries excl A&G)
- OTHER DEFERRED-Energy - Factor 6 (MWH Sales)
- RECS AND REPS-Energy - Factor 6 (MWH Sales)
- OTHER DEF-LIGHTING - Factor 62 (Net Plant incl Nuclear Fuel)
- OTHER ALLOCATED-Energy - Factor 5 (MWH at Generation Level)
- OTHER ALLOCATED-Energy - Factor 5 (MWH at Generation Level)
- OTHER DEFERRED - Factor 5 (MWH at Generation Level)

Step 1: The system total is determined and assigned to "function" and allocated as listed above

- DEFERRED PROFORMA(S)-

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **SUBTOTAL DEFERRED ITEMS** - Sum of Deferred Items above.

- **REQUIRED PENSION FUNDING** -

Step 1: The system total is entered and allocated on Factor 59 (Salary A&G).

- PENSION PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **SUBTOTAL REQUIRED PENSION FUNDING** - Sum of Pension Items above.
- **TOTAL DEFERRED ITEMS** - Sum of Deferred Items plus Required Pension Funding.
- **1/8 O&M:**

(SC Jurisdiction only) 1/8 O&M method is used to calculate the cash working capital. It is calculated by the COSS Model using Total O&M (including A&G) minus Nuclear Fuel and Purchase Power then dividing the total by 8. This is done for each rate class.
- **TOTAL WORKING CASH** - Sum of Prepayments, Cash Working Capital, Deferred Items, and 1/8 O&M from above.
- **TOTAL WORKING CAPITAL** - Sum of Working Cash and Total M&S from above.
- **TOTAL RATE BASE** - Electric Plant in Service (Sch 4) + Additive & Subtractive Adjustments (Sch 5) + Total Working Capital (Sch 5).
- **TOTAL RATE OF RETURN ALLOWABLE** - Rate of Return Percentage.
 

Background information: This is the calculated rate of return (also shown on schedule 1)
- **TOTAL RETURN ON RATE BASE** - Total Rate Base times Rate of Return.

## **Section 2.6: Operation & Maintenance Expense**

**Schedule 6** contains Operation & Maintenance (O&M) including A&G expense as follows:

- Production O&M energy related
- Production O&M demand related
  - Total Production
- Transmission O&M
- Distribution O&M - Operations
- Distribution O&M - Maintenance
  - Total Distribution
- Customer Accounting
- Customer Service & Information
- Sales
  - Subtotal O&M excl. A&G
- Administrative & General
  - Total O&M

### **PRODUCTION O&M ENERGY RELATED:**

- FOSSIL FUEL EXPENSE(FERC 501) -  
  
Step 1: The system total from Accounting is input and allocated on Factor 6 (MWH Sales).
- NUCLEAR FUEL DISPOSAL COST(FERC 518.6) -  
  
Step 1: The system total from Accounting is input and allocated on Factor 6 (MWH Sales).
- NUCLEAR FUEL EXPENSE(FERC 518.1, 518.5) -  
  
Step 1: The system total from Accounting is input and allocated on Factor 6 (MWH Sales).
- FUEL EXPENSE DIRECTLY ASSIGNED  
  
Step 1: The Retail and Wholesale state totals for Intersystem Fuel are determined by analysis and detail from Accounting. This is allocated on Factor 6 (MWH Sales).

- FUEL EXPENSE DIRECTLY ASSIGNED

Step 1: Other totals for Intersystem Fuel are determined by analysis and detail from Accounting. This is allocated on Factor 6 (MWH Sales).

- FUEL IN PURCHASE POWER & INTERCHANGE -

Step 1: The system total from Accounting is input and allocated on Factor 6 (MWH Sales).

- FUEL PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- LINE LOSS (DIRECT) -

Step 1: Add Fossil Fuel, Nuclear Fuel, Nuclear Fuel Disposal, O&M recovered through fuel, and Purchased Power Fuel Component from analysis.

Step 2: Allocate the Step 1 total to all rate schedules based on Factor 6 (MWH Sales).

Step 3: Any direct assignments would be assigned to the proper rate schedules.

Step 4: Allocate the Step 1 total to all rate schedules based on Factor 5 (MWH at Generation Level).

Step 5: For each rate schedule, subtract Step 2 from Step 4 and then add any direct assignments from Step 3. This is the line loss adjustment to be directly assigned.

Background information: This adjustment is related to a past Public Staff request to see it displayed this way. It provides a visible means of showing the effects of line losses on the fuel expenses of certain rate schedules.

- OTHER FUEL - FOSSIL -

Step 1: Allocate the total to all rate schedules based on Factor 5 (MWH at Generation Level).

- OTHER FUEL - NUCLEAR -

Step 1: Allocate the total to all rate schedules based on Factor 6 (MWH Sales).

- OTHER FUEL - EMISSION ALLOWANCE REL AND OTHER -

Step 1: Allocate the state/retail/wholesale total to all rate schedules based on Factor 6 (MWH Sales).

- NET INTERCHANGE - ENERGY-RELATED (FERC 555.2) -

Step 1: The system total comes from Accounting and allocated on Factor 5 (MWH at Generation Level).

- OTHER PRODUCTION EXPENSE DIRECTLY ASSIGNED

Step 1: The state totals are determined by analysis of production related charges and are allocated on Factor 6 (MWH Sales).

- PURCHASED POWER PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- PURCHASED POWER RECOVERED THROUGH FUEL

Step 1: The system total comes from Accounting and is allocated on Factor 6 (MWH Sales).

- O&M RECOVERED THROUGH FUEL

Step 1: The state totals are determined by analysis and are allocated on Factor 6 (MWH Sales).

- OTHER PROD EXPENSE

Step 1: The system total comes from Accounting and is input into the COSS Model to be allocated on Factor 5 (MWH at Generation Level).

- ENERGY RELATED SAW COSTS EXPENSE

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 6 (MWH Sales).

- NC INCREMENTAL RENEWABLE FUEL

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 5 (MWH at Generation Level).

- RECS CONSUMPTION EXPENSE

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 5 (MWH at Generation Level).

- OTHER PROD EXPENSE

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on 6 (MWH Sales).

- PRODUCTION - DIRECT DEMAND SOLAR

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on 68 (WTD\_CUST).

PRODUCTION PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL ENERGY RELATED** - Total of the Energy Related Production O&M items above.

Progress Merger Note: The following Progress Merger changes will be implemented for Cost of Service studies with test periods after July 1, 2012.

- JOINT DISPATCH AGREEMENT (JDA) NONFUEL O&M

Step 1: Joint Dispatch Agreement (JDA) NonFuel O&M - Non fuel O&M allocated on energy to all jurisdictions (NC Retail, SC Retail and Wholesale). Allocation factor 5 (MWH at Generation Level).

- MITIGATION ENERGY O&M

Step 1: Mitigation Energy O&M - Identification of costs (O&M, Fuel, and Purchased Power) is received from accounting. These costs are direct assigned to wholesale reducing the level of costs assigned to retail. (NC Retail and SC Retail assigned to wholesale). Allocation factor 41 (O&M EXPENSE EXCLUDING FUEL, PURCHASED POWER, A&G).

- MITIGATION ENERGY FUEL

Step 1: Mitigation Energy Fuel - Identification of costs (O&M, Fuel, and Purchased Power) is received from accounting. These costs are direct assigned to wholesale reducing the level of costs assigned to retail. (NC Retail and SC Retail assigned to wholesale). Allocation factor 5 (MWH at Generation Level).

- MITIGATION ENERGY PURCHASED POWER

Step 1: Mitigation Energy Purchased Power - Identification of costs (O&M, Fuel, and Purchased Power) is received from accounting. These costs are direct assigned to wholesale reducing the level of costs assigned to retail. (NC Retail and SC Retail assigned to wholesale). Allocation factor 5 (MWH at Generation Level).

**DEMAND RELATED PRODUCTION O&M:**

- NET INTERCHANGE - DEMAND-RELATED (FERC 555.2) -

Step 1: The system total comes from Accounting and is allocated on Factor 1 (Peak Demand).

- DEMAND-RELATED - SAW PROGRAM COSTS(FERC 557) -

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 1 (Peak Demand).

- PURCHASED POWER - OTHER -

Step 1: Using state totals from Regulatory Accounting, allocate to rate schedules based on Factor 1 (Peak Demand).

- OTHER PRODUCTION EXPENSE DEMAND-RELATED - ALLOCATED (FERC 502 - 517, 519 - 554, 557) NOTE: Demand and energy are separate groups on the COSS.

Step 1: The system total comes from Accounting and is allocated on Factor 1 (Peak Demand).

- **TOTAL DEMAND RELATED** - Total of Demand Related Production items above.

Progress Merger Note: The following Progress Merger changes will be implemented for Cost of Service studies with test periods after July 1, 2012.

- MITIGATION CAPACITY

Step 1: Mitigation Capacity - Remove allocable costs determined in the calculation of the retail mitigation rider from Retail and assign to wholesale (NC Retail and SC Retail assigned to wholesale). Allocation factor 1 (Peak Demand).

- **TOTAL PRODUCTION O&M** - Sum of Total Energy Related and Total Demand Related O&M.

#### **TRANSMISSION O&M (FERC 560-573):**

- ALLOCATED - DIRECT -

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group Factor 6 (MWH Sales)

- ALLOCATED -

Step 1: The system total from Accounting is reduced by anything that is direct assigned (see above).

Step 2: Costs are allocated on Factor 2 (Transmission peak).

- MISCELLANEOUS ADJUSTMENTS -

Step 1: Identified adjustments are entered and allocated on Factor 2 (Transmission Demand).

- Other -

Step 1: Identified adjustments are entered and allocated on Factor 2 (Transmission Demand).

- TRANSMISSION PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL TRANSMISSION EXPENSE** - Sum of the above Transmission items.

## **DISTRIBUTION O&M (FERC 580-598):**

### **OPERATIONS:**

- SUPERVISION AND ENGINEERING (FERC 580) -

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 32 (Distribution Operating Expense, FERC 582 - 587).

- SUBSTATIONS (FERC 582) -

- Step 1: The state totals are determined by analysis of the distribution charges.
  - Step 2: Value from step 1 is allocated to the rate classes on Factor 11 (Land, Structure & Station Equipment, FERC 360 - 362).
- OVERHEAD LINES (FERC 583) -
  - Step 1: The state totals are determined by analysis of the distribution charges.
  - Step 2: Value from step 1 is allocated to the rate classes on Factor 12 (OH Poles, Conduct, and Services, FERC 364, 365, and 369).
- UNDERGROUND LINES (FERC 584) -
  - Step 1: The state totals are determined by analysis of the distribution charges.
  - Step 2: Value from step 1 is allocated to the rate classes on Factor 13 (UG Cond & Devices, FERC 366 and 367).
- STREET LIGHTING & SIGNAL SYSTEMS (FERC 585) -
  - Step 1: The state totals are determined by analysis of the distribution charges.
  - Step 2: Value from step 1 is direct assigned to GL, PL and TS according to the investment in Distribution Plant Account 373
- METERS ALLOCATED (FERC 586)-
  - Step 1: The state totals are determined by analysis of the distribution charges.
  - Step 2: Value from step 1 is allocated to the rate classes on Factor 29 - Distribution Engineering allocation of 370 (average customer \* an identified cost per meter)).
- CUSTOMER INSTALLATIONS - ALLOCATED (FERC 587 excluding 587.1):

- Step 1: The state totals are determined by analysis of the distribution charges. The identified state total, excluding load control devices (LCD), are allocated on Average Customers.
- CUSTOMER INSTALLATIONS - ALLOCATED (FERC 587.1):

Step 1: The identified load control devices (LCD) costs (identified above) are entered and allocated on Factor 1 (Peak Demand).
  - MISCELLANEOUS DISTRIBUTION EXP (FERC 588 excluding 588.2):

Step 1: Subtract the allocated-demand state totals for LCD (below) from Regulatory Accounting's state totals and input this amount into the COSS Model to be allocated on Factor 32 - Distribution Operating Expense (FERC 582-587).
  - MISCELLANEOUS EXPENSES - ALLOCATED DEMAND (FERC 588.2):

Step 1: Isolate load control expenses for sub-account 588.20. Input this total system amount into the COSS Model to be allocated on Factor 1 (Peak Demand).
  - RENTS (FERC 589):

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 32 (Distribution Operating Expense (FERC 582-587)).
  - MISCELLANEOUS OPERATING EXPENSES & RENTS PROFORMA(S) -

Step 1: Identified adjustments or proformas are entered and allocated on Factor 32 (Distribution Operating Expense (FERC 582-587)).
  - DISTRIBUTION OPERATIONS PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

**MAINTENANCE:**

- SUPERVISION AND ENGINEERING (FERC 590):

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 33 (Distribution Maintenance Expense, FERC 591-598).

- STRUCTURES (FERC 591):

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 11 (Land, Structure & Station Equipment, FERC 360-362).

- SUBSTATION EQUIPMENT (FERC 592):

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 11 (Land, Structure & Station Equipment, FERC 360-362).

- OVERHEAD LINES (FERC 593):

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 12 (OH Poles, Conduct, Services, FERC 364-365, and 369).

- UNDERGROUND LINES (FERC 594):

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 13 (UG Cond & Devices, FERC 366-367).

- LINE TRANSFORMERS(FERC 595):
  - Step 1: The state totals are determined by analysis of the distribution charges.
  - Step 2: Value from step 1 is allocated to the rate classes on Factor 14 (Line Transformers, FERC 368).
- STREET LIGHTING AND SIGNAL SYSTEMS(FERC 596):
  - Step 1: The state totals are determined by analysis of the distribution charges.
  - Step 2: Value from step 1 is direct assigned to GL, PL and TS according to the investment in Distribution Plant Account 373.
- METERS ALLOCATED (FERC 597):
  - Step 1: The state totals are determined by analysis of the distribution charges.
  - Step 2: Value from step 1 is allocated to the rate classes on Factor 29 - Distribution Engineering allocation of 370 (average customer \* an identified cost per meter)).
- MISCELLANEOUS EXPENSES(FERC 598):
  - Step 1: The state totals are determined by analysis of the distribution charges.
  - Step 2: Value from step 1 is allocated to the rate classes on Factor 21 (Average Bills).
- DISTRIBUTION MAINTENANCE PROFORMA(S) -
  - Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.
- **TOTAL DISTRIBUTION O&M** - Sum of Distribution Operations and Maintenance Expense above.

## **CUSTOMER ACCOUNTS EXPENSE (FERC 901-905):**

- **SUPERVISION (FERC 901):**

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 35 (Customer Accounts Expense - Retail only (FERC 902-904)).

- **METER READING (FERC 902):**

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 25 (Average Bills excluding GL, OL and PL).

- **CUSTOMER RECORDS & COLLECTION (FERC 903):**

Step 1: Sub-account 903.40 is split between EDP and Special Billing customers. Customer Accounting supplies a report with the number of Special Billing customers that is used to allocate the cost associated with these customers. The remaining EDP cost is allocated on the remaining number of customers.

Step 2: Sub-accounts 903.10 and 903.20 are allocated to rate schedules based on Average Bills (exclude W, WC).

Step 3: Add identified wholesale direct assignments from Wholesale Accounts.

Step 4: The balance of this account is split by state using the General Ledger and then allocated to rate schedules within the state based on Average Bills (exclude OL, W, WC).

Step 5: The results of Steps 1 - 4 are input as a direct assignment.

Background information: Expenses related to OL customers appear only in sub-accounts 903.10 and 903.20.

- **UNCOLLECTIBLE ACCOUNTS(FERC 904):**

Step 1: A sample charge off report representing uncollectibles from Charlotte, Greensboro, and Greenville is provided by Customer Accounting. Analysis of this report allows for the direct assignment of the uncollectible expense by state and rate class.

- **MISCELLANEOUS CUSTOMER ACCOUNTS(FERC 905):**

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 35 (Customer Accounts 902-4).

- **CUSTOMER ACCOUNTS PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL CUSTOMER ACCOUNTS EXPENSE -** Sum Customer Accounts Expense (FERC 901-905).

**CUSTOMER SERVICE & INFORMATION EXPENSE (FERC 906-910):**

- **CUSTOMER ASSISTANCE(FERC 908):**

Step 1: Identify marketing expenses from analysis of certain 908 sub accounts. These costs are then distributed between rate classes based on number of customers.

Step 2: The remaining balance which is allocated to rate schedules based on Average Customers - excluding Lighting.

Step 3: Sum of Step 1 and 2 is input into the COSS.

- **INFORMATION & INSTRUCTIONAL ADVERTISING(FERC 909):**

Step 1: Identify marketing expenses from analysis of certain 909 sub accounts. These costs are then

distributed between rate classes based on number of customers.

Step 2: The remaining balance which is allocated to rate schedules based on Average Customers - excluding Lighting.

Step 3: Sum of Step 1 and 2 is input into the COSS.

- MISCELLANEOUS CUSTOMER SERVICE & INFORMATION(FERC 910):

Step 1: The state totals are determined by analysis of the distribution charges.

Step 2: Value from step 1 is allocated to the rate classes on Factor 21 (Average Bills - excluding lighting and wholesale).

- CUSTOMER SERVICE PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL CUSTOMER SERVICE & INFORMATION** - Sum Customer Service & Information Expense (FERC 906-910).

**Sales Expense (FERC 911-916):**

- SALES EXPENSES:

Step 1: Identify sales expenses from analysis of certain 911-916 sub accounts by state. These costs are then distributed between rate classes based on Average Customers - excluding Lighting.

Step 2: The remaining balance which is allocated to rate schedules based on Average Customers - excluding Lighting.

Step 3: Sum of Step 1 and 2 is input into the COSS.

- SALES EXPENSE PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL SALES EXPENSE** - Sum of Sales Expense (FERC Accounts 911 - 916).
- **SUBTOTAL O&M EXCLUDING A&G** - Sum of O&M items plus Customer Accounting, Customer Service & Information, and Sales Expenses.

#### **Administrative and General Expense (FERC 920-935):**

- A&G EXPENSE RELATED TO WAGES & SALARIES -

Step 1: Total Wages & Salaries are determined by analysis of the 92x accounts to determine the charges which primarily relate to employee wages and salaries. Most charges are in the 920 (Salaries), 923 (Outside Services), and 926 (Benefits) accounts.

Step 2: Value from step 1 is allocated to functional line in the cost of service (i.e. production, Transmission, etc) based on the functional breakdown of total salaries as reported on the salaries and wage page of the Form 1.

Step 3: Functional totals calculated in Step 2 are then allocated to the individual rate classes based on applicable Factors listed below. For example, production is allocated on Factor 57 and transmission is allocated on Factor 58.

Factor 52, Distribution O&M Expense  
 Factor 53, Customer Accounting O&M Expense  
 Factor 54, Customer Service & Info O&M Expense  
 Factor 55, Sales O&M Expense  
 Factor 57, Power Production O&M Expense  
 Factor 58, Transmission O&M Expense  
 Factor 59, Total Wages & Salaries excluding A&G.

- A&G O&M RELATED EXPENSES:

Step 1: The system total is input into and allocated on Factor 41 (O&M Expense excluding Fuel, Purchase Power, & A&G).

FUNCTIONALIZED A&G EXP:

- PRODUCTION-DEMAND - Factor 1 (Peak Demand)
- PRODUCTION-ENERGY - UNUSED
- TRANSMISSION - Factor 2 (Transmission Peak)
- DISTRIBUTION - Factor 8 (Distribution Plant)
- GENERAL - Factor 10 (General Plant)
- OTHER - Factor 16 (Net Plant)
- OTHER - Factor 1 (Peak Demand)

Step 1: The System/State totals from Regulatory Accounting related to each function are input into the COSS and allocated as shown above.

Background information: This section is used to accommodate any additional functionalized A&G items that are determined to be needed.

TOTAL A&G Expense Unadjusted - Sum of A&G items above.

- REGULATORY COMMISSION (FERC 928):

Step 1: The system total is input and allocated on Factor 6 (MWH Sales).

- RENTS (FERC 931):

Step 1: The system total is input and allocated on Factor 56 (Total Distribution O&M).

- MAINTENANCE OF GENERAL PLANT (FERC 935):

Step 1: Each state's total is input and allocated on Factor 10 (General Plant).

- ADJUSTMENT MERGER CONDITION:

Step 1: Recognition of merger condition(s) that may exist. The allocator would be dependent on the cause of the condition.

- EPRI:

Step 1: The total is determined by analysis and input. The value is allocated on Factor 41 (O&M ex Fuel, Purchase Power, & A&G adjusted to exclude 10A amounts).

Background information: EPRI is allowed in both jurisdictions excluding Schedule 10A. FERC does not allow Schedule 10A customers to receive any Research & Development reimbursements or expenses related to EPRI.

- ADVANCED ENERGY:

Step 1: Each state's contribution from Regulatory Accounting is input and allocated to Retail rate schedules based on Factor 5 (MWH at Generation Level).

- NCUC FEE:

Step 1: The total NCUC Fee is allocated to NC Retail schedules based on state specific Factor 39 (Electric Operating Revenue).

- BPM SALARIES:

Step 1: Salaries related to Bulk Power Marketing (BPM) activities are directly assigned to wholesale using allocation Factor 6 (MWH sales)

- A&G Salary Related

Step 1: A&G Salaries related are allocated to class using allocation Factor 59 (Total Salary and Wages ex. A&G)

- Other General Expense

Step 1: State totals are allocated to class using allocation Factor 41 (O&M ex. Fuel, Purchase Power, A&G)

- Coastal Wind

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 5 (MWH at Generation Level).

- Pension and Benefits

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 59 Total Salary and Wages ex. A&G)

- A&G PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL ADMIN & GENERAL EXP** - Sum of A&G Items above.

- **TOTAL O&M EXPENSE** - Sum of Subtotal O&M EXCLUDING A&G and Total Admin & General Expense.

## **Section 2.7: Depreciation Expense**

### **PRODUCTION DEPRECIATION EXPENSE (FERC 403, 404, 405, 407, 421.75):**

- **CONTRA AFUDC:**

Step 1: Totals for Contra AFUDC for each state jurisdiction that approved recovery of CWIP come from Regulatory Accounting and are allocated on Factor 1 (Peak Demand) to the customer classes.

- **ALLOCATED – DEMAND:**

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 1 (Peak Demand) to customer classes. .

- **ALLOCATED-ENERGY:**

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 5 (MWH at Generation Level).

- **PRODUCTION – DIRECT DEMAND SOLAR**

State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 68 (WTD\_Cust).

- **PROFORMA(S) –**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL PRODUCTION** – Sum of production depreciation items above.

#### **TRANSMISSION DEPRECIATION EXPENSE (FERC 403):**

- **CONTRA AFUDC:**

Step 1: Totals for Contra AFUDC for each state jurisdiction that approved recovery of CWIP come from Regulatory Accounting and are allocated on Factor 2 (Transmission Demand) to the customer classes.

- **ALLOCATED:**

Step 1: Future Use.

- **ALLOCATED:**

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 2 (Transmission Demand).

- **PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL TRANSMISSION** - Sum of transmission depreciation items above.

#### **DISTRIBUTION DEPRECIATION EXPENSE (FERC 403):**

- **ALLOCATED:**

Step 1: Future Use.

- **ALLOCATED:**

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 8 (Gross Distribution Plant).

- DISTRIBUTION PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL DISTRIBUTION** - Sum of distribution depreciation items above.

#### **GENERAL DEPRECIATION EXPENSE (FERC 403):**

- CONTRA AFUDC -

Step 1: Totals for CONTRA AFUDC for each state jurisdiction that approved recovery of CWIP come from Regulatory Accounting and are allocated on Factor 10 (GenPlt) to the customer classes.

- EDP DEPRECIATION:

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 10 (General Plant).

- ALLOCATED:

Step 1: The system total from Regulatory Accounting is input into the COSS Model to be allocated on Factor 10 (General Plant).

- AMORTIZATION OF EA GAINS AND OTHER:

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 5 (MWH at Generation level).

- OTHER:

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 1 (Peak Demand).

- EPA AUCTION AMORTIZATON:

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 5 (MWH at Generation level).

- GENERAL PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL GENERAL** - Sum of general depreciation items above.

- **TOTAL DEPRECIATION EXP** - Sum of all depreciation expense items above.

## **Section 2.8: General Taxes**

### **REAL ESTATE & PROPERTY TAXES (FERC 408.00, 408.36):**

- PRODUCTION - Factor 1 (Peak Demand)
- TRANSMISSION - Factor 2 (Transmission Peak)
- DISTRIBUTION - Factor 8 (Distribution Plant)
- GENERAL - Factor 10 (General Plant)

Step 1: The System/State totals from Regulatory Accounting related to each function are input into the COSS and allocated as shown above.

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL PROPERTY TAXES** - Sum of Property Tax items above.

### **REVENUE RELATED AND OTHER TAXES:**

- FRANCHISE TAXES (FERC 408.10, 408.47):

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 17 (Book Retail & 10A Revenue from Sales).

- FRANCHISE TAXES - SOLAR ABOVE CAP:

Step 1: State totals for retail and wholesale from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 68 (WTD\_CUST).

- OTHER REVENUE RELATED:

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 5 (MWH at Generation Level).

- MUNICIPAL LICENSES(FERC 408.05, 408.41):

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 38 (Retail Revenue from Sales).

**Background information:** For studies beginning with 1992 year end, the South Carolina portion will be zero. In SCPSC Docket No. 91-216-E, it was stated that "these fees, imposed by certain municipalities, would only be charged to those customers living within the corporate limits of that municipality, therefore not affecting all ratepayers".

- OTHER REVENUE RELATED -

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 38 (Revenue from Sales).

- OTHER REVENUE RELATED-ENERGY -

Step 1: Totals BPM fringes for retail and wholesale by state come from Regulatory Accounting and are input into the COSS Model to be allocated to each respective group on Factor 6 (MWH Sales).

- SALES & USE TAX -

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on the Factor 5 (MWH at Generation Level).

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL REVENUE RELATED TAXES** - Sum of Revenue Related taxes above.

- SC KWH TAX(FERC 408.52):

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 40 (SC Annual MWH Sales).

**Background information:** The SC KWH Tax was created by the SC Tax Commission's office in 1958. From that date all sales would be subject to the tax except those that came in the industrial class as a result of growth. See Factor 40 for information on how it is developed.

#### **TAXES RELATED TO WAGES & SALARIES:**

- FEDERAL SOCIAL SECURITY & UNEMPLOYMENT(FERC 408.70, 408.75):
- STATE UNEMPLOYMENT (FERC 408.15, 408.57):
- STATE WORKMEN'S COMPENSATION (FERC 408.20, 408.63):

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 59 (Wages & Salaries excluding A&G).

- PAYROLL TAXES - DIRECT

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 59 (Wages & Salaries excluding A&G).

- PROFORMA(S) -

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL MISCELLANEOUS EXPENSE** - Sum of taxes related to wages & salaries above.
- **TOTAL OTHER TAX & MISC EXPENSE** - Sum of Real Estate & Property Taxes, Revenue Related Taxes, SC KWH Tax and Taxes Related to Wages & Salaries.

## **Section 2.9: Income Taxes**

### **LESS INTEREST ALLOCATED TO ELECTRIC OPERATIONS:**

#### **OTHER INTEREST EXPENSE (FERC 432):**

- **ALLOCATED -**

Step 1: Future Use.

- **ALLOCATED -**

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 44 (Rate Base including CWIP (excludes Cash)).

- **PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL OTHER INTEREST EXPENSE**

#### **CUSTOMER DEPOSITS:**

- **INTEREST ON CUSTOMER DEPOSITS (DIRECT)(FERC 432):**

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 65 (Sample charge off).

Step 2: To develop the Sample Charge off Allocator, obtain a sample charge off report. This report identifies charge offs by rate schedules on a system basis and represents uncollectible accounts from Greensboro, Charlotte, and Greenville.

- **INTEREST ON CUSTOMER DEPOSITS-ALLOCATED**

Step 1: Future Use.

- **PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL CUSTOMER DEPOSITS** - Sum of customer deposits above.
- **TOTAL INTEREST** - Sum of Interest items above.

**AMORTIZED INVESTMENT TAX CREDIT:**

- PRODUCTION PLANT - Factor 1 (Peak Demand)
- TRANSMISSION PLANT- Factor 2 (Transmission Peak)
- DISTRIBUTION PLANT - Factor 8 (Distribution Plant)
- GENERAL PLANT - Factor 10 (General Plant)
- OTHER - Factor 1 (Peak Demand)
- ENERGY ALLOCATION - Factor 5 - (MWH at Generation Level)

Step 1: The System/State totals from Regulatory Accounting related to each function are input into the COSS and allocated as shown above.

- **TOTAL AMORTIZED ITC** - Sum of the Amortized Investment Tax Credit items above.
- **TEST YEAR INV TAX CREDIT** - Row is unused.

**INCOME TAX COMPUTATION:**

- RETURN ON RATE BASE - From Schedule 5 Return on Rate Base.
- TOTAL AMORTIZED ITC - From Schedule 9 Total Amortized Investment Tax Credit.
- TOTAL OTHER INTEREST EXPENSE - From Schedule 9 Total Interest.
- ADJUSTMENTS TO DETERMINE TAXABLE INCOME - Not used.
- OTHER - Not used.
- MISCELLANEOUS - Not used.
- **BASE FOR TAX COMPUTATION** - Sum of Income Tax Computation items above.

- SYSTEM TAX FACTOR INCL DEFERRED - Composite tax rate including State, Federal and Deferred taxes.
- PRELIMINARY INCOME TAX - State totals by retail and wholesale come from Regulatory Accounting.
- TEST YEAR INV TAX CREDIT - Any additional ITC for test year.
- **NET INCOME TAX** - Sum of taxes

## **Section 2.10: Other Revenue & COS Computation**

### **Other Operating Revenue:**

- **LATE PAYMENT CHARGE (FERC 450):**

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 65 (Sample Charge off).

Step 2: The sample charge off report is used to develop the Sample Charge off Allocator . This report identifies charge offs by rate schedules on a system basis and represents uncollectible accounts from Greensboro, Charlotte, and Greenville.

**Background information:** There are currently no records kept within our billing system of late payments by rate schedule for all customers. As a result, the sampling approach mentioned in step 2 is used to allocate late payments.

- **MISCELLANEOUS SERVICE REVENUE (FERC 451):**

Step 1: State total are allocated based on Factor 64 (Rate Revenue, which is per Book Revenue + add back of Load Control & IS Credits)

**Background information:** These Miscellaneous Service Revenues represent charges for reconnecting discontinued service to residential customers only.

- **RENTAL REVENUE - FROM POLE ATTACHMENTS (FERC 454.20)**

Step 1: State totals from Regulatory Accounting are input into the COSS Model and allocated to each respective group on Factor 12 (Sum of Distribution Plant Accounts 364, 365, and 369).

**Background information:** This revenue is received from fees that cable-TV and telephone companies pay to use company-owned poles.

- **RENT - REAL ESTATE (FERC 454.40):**

Step 1: System total from Regulatory Accounting is input into the COSS Model and allocated on Factor 59A (Total Wages and Salaries excluding A&G).

- EXTRA FACILITIES CHARGE (FERC 454.10, 454.11, and 454.50):

Step 1: Obtain CBIS - Extra Facility report from Customer Accounting. This report identifies revenue by state, rate schedule, and Transmission or Distribution.

Step 2: Catawba Leased Facilities (454.50) revenues should be obtained from Regulatory Accounting.

Step 3: The 2 preceding steps should be summarized for the direct assignment.

Note 1: No Extra Facilities are assigned to Lighting. Per Power Delivery, Extra Facilities investments for Lighting are included in Lighting specific data provided by Asset Accounting for accounts 364,365,366,367,371 which is determined based on projects.

**Background information:** By including interconnection revenues in Step 1, we account for any Extra Facilities used by Schedule PG (Co-generation) or Schedule PP (Purchased Power - Qualifying Facilities) customers.

For Cost of Service study purposes, we directly assign Extra Facilities revenues from all sources on the same line.

- CIAC & OTHER DISTRIBUTION RELATED ITEMS - ALLOCATED (FERC 456):

Step 1: Various revenues associated with Distribution Charge, Power Factor Penalty and Contribution in Aid of Construction are included here. The state totals for retail and wholesale are determined by analysis and are allocated to rate schedules based on Factor 8 (Distribution Plant).

- OTHER -  
(FERC 454) -

Step 1: System total is input into the COSS model and allocated on Factor 2 (Demand at Transmission Level).

- TOWER LEASE AND OTHER DEMAND RELATED ITEMS (FERC 454.30) -

Step 1: The system total for Tower Lease revenues (454.3) is allocated in the COSS to rate schedules based on Factor 2 (Demand at Transmission Level).

- OTHER REVENUE ENERGY REL (FERC 456.11) -

Step 1: State totals for retail and wholesale are input and allocated in the COSS model on Factor 6 (MWH Sales).

- SALE OF MATERIALS & SUPPLIES (FERC 456.10):

Step 1: System total is input and allocated on Factor 42 (Total Materials and Supplies).

- REVENUE FROM TRANSMISSION OF ELECTRICITY (FERC 456.1) -

#### DEMAND RELATED - DIRECT

Step 1: Identify state totals for Wheeling fees. The state totals are assigned to the respective wholesale columns in COSS.

Step 2: The 456.1 series represents revenues over transmission facilities of the utility. The system totals by sub-accounts are allocated in the COSS model on Factor 2 (Demand at Transmission Level).

#### ENERGY RELATED - DIRECT

Step 3: If applicable, a portion of 456.11 is assigned to NC retail and allocated to rate schedules in the COSS on Factor 6 (MWH sales).

**Background information:** Wheeling fees result when a customer enters into a special contract with Duke

Power to "wheel" power across Duke's transmission system.

- SERVICE PROVIDED TO OTHERS  
(FERC 454.51, 455, 456.30, 454.51, 456.61, 456.80, 456.949) -

Step 1: System total is input and allocated on Factor 59 (Wages and Salaries excluding A&G).

- MISCELLANEOUS OTHER ELECTRIC REVENUE - (447, 456.1, 456.6, 454.7)

Step 1: Intersystem demand's system total determined by analysis is allocated on Factor 1 (Peak Demand).

Step 2: Intersystem energy's system total determined by analysis is allocated on Factor 5 (MWH at Generation Level).

Step 3: State retail totals for Demand Side Management (DSM) supplied by accounting is allocate on Factor 1 (Peak Demand).

Step 4: State totals for retail and wholesale for Fuel revenue for BPM sales and Interchange Fuel are allocated on Factor 6 (MWH Sales).

Step 5: Intersystem energy's system total for Nantahala is direct assigned to the NPL - Wholesale column.

**Background information:** Miscellaneous Other Electric Revenue currently serves as a "catch-all" for other revenue items.

- Leased Revenue-CERT - (454.6)

Step 1: System total is input into the COSS Model and allocated on Factor 1 (Peak Demand).

- PARALLEL GEN BACK STAND (STANDBY) REVENUE -

Step 1: State totals for Standby revenue are allocated on Factor 1 (PEAK DEMAND).

**Background information:** The Standby Program allows the Company to interrupt service to a customer during a

critical supply event. In place of this interruption, the customer may run an on-site generator to supply the facility with its energy needs. All customers benefit from the availability of this program, so the costs as well as the bill credits are allocated to all customer groups.

- **HP REVENUE - DIRECT**

Step 1: HP Revenues are direct assigned to their base rate.

- **UNBILLED REVENUE**

Step 1: State totals for retail and wholesale are input and allocated to each respective group on Factor 6 (MWH Sales).

- **BPM-CURRENT YEAR DERERRAL**

Step 1: State totals for retail and wholesale are input and allocated to each respective group on Factor 6 (MWH Sales).

- **BPM-PRIOR YEAR REVERSAL**

Step 1: State totals for retail and wholesale are input and allocated to each respective group on Factor 6 (MWH Sales).

- **UNUSED**

- **PROFORMA(S) -**

Step 1: The Proforma adjustment is entered and the correct allocation method is then determined.

- **TOTAL OTHER OPERATING REVENUE** - Sum of Other Operating Revenue above.

- **TOTAL ELECTRIC OPERATING REVENUE** - Sums Total Revenue from the Sale of Electricity from Schedule 11 and Total Other Operating Revenue from Schedule 10.

**COST OF SERVICE COMPUTATION:**

The calculation is as follows:

Total Operating Expense	Schedule 8
Return on Rate Base	Schedule 5
Net Income Tax	Schedule 9
Interest on Customer Deposits	Schedule 9
Total Amortized ITC	Schedule 9
Total Other	Unused
Subtotal	Sum above items
Other Deductions to Cost of Service	not used
<b>Total Electric cost of Service</b>	Sum above items
a Proposed Revenues	Schedule 11
b Total Elec Cost Of Service (reverse signs)	Schedule 10
c Excess Revenues	a + b
d Composite Statutory State & Fed Tax Rate	Schedule 11
e Excess Tax	c * d
f Excess Return	c - e

**Background information:** This calculates excess return (+ or -) and is added to Total Return Earned on Schedule 1.

## **Section 2.11: Misc cost rates**

### **Capitalization:**

This section shows the Capitalization, Cost of Capital and Weighted Cost of Capital. Most of this section is not utilized but it does contain the long term debt, common stock and rate of return (ROR) percentages.

### **Tax Rates and Special Tax Factors:**

Contains a list of the various tax rates/factors used in the COSS. Various composite tax rates are used which may include all or part of the State, Federal, Deferred taxes, Gross Receipts and regulatory tax rates.

For Example: Present Revenue is multiplied by System Tax Factor which includes State, Federal and Deferred. The rate increase is multiplied by the Composite Statutory including State, Federal, Gross Receipts and Regulatory rates, if applicable.

## **Section 2.12: Electric Operating Revenue**

Present Revenue (Book) equals revenue from sale of electricity plus fuel clause (over/under) as detailed below. Other Operating Revenue is included on Schedule 10. On COSS Schedule 1, Other Revenue is added to Billed Revenue to develop total operating revenue.

- REVENUE FROM SALE OF ELECTRICITY  
(FERC 440, 442, 444, 445, and 447)

Step 1: Based on information from the Revenue Analysis Section of Rates, add Per Book Load Control and Interruptible Credits back to Per Book Revenue from Energy Sales to arrive at **Rate Revenue**. All rates are as if these credits had not existed.

Step 2: Using the Demand at Generation (Peak Demand) Factor 1 allocate the total of all credits to all rate schedules on the theory that all ratepayers benefit from a reduction in system peak demand.

Step 3: Subtract from Rate Revenue in Step 1 the allocated credits in Step 2 to yield **Cost of Service Revenue** by rate schedule to be directly assigned.

Background information -

- Load Control Credits are amounts paid to residential customers who allow the company to interrupt their cooling and water heating at times of peak demand.
- Interruptible Credits are amounts paid to non-residential customers who allow the company to supply only a pre-determined demand level during times of system peak demand. The pre-determined level is much less than the customers' average demand.

- FUEL CLAUSE (OVER/UNDER)  
(FERC 456.50) -

Step 1: Using Factor 5, MWH at Generation by rate schedule excluding Greenwood, allocate the total from Regulatory Accounting to NC and SC Retail rate schedules.

Step 2: Review Regulatory Accounting information to see if there are direct assignments for the wholesale schedules within the test period.

- Background information -
  - This item adjusts revenues to account for the fact that fuel costs are always under-recovered or over-recovered at any given point in time through the existence of a fuel clause in the appropriate jurisdictions.
  - Greenwood retail sales are excluded because the rates we are under contract to charge them do not include a fuel clause. All KWH sold to retail customers on the "Greenwood rate" are excluded from the allocation of this item.
- **Total Rev from the Sale of Electricity** - The sum of the revenue items above.

Progress Merger Note: The following Progress Merger changes will be implemented for Cost of Service studies with test periods after July 1, 2012.

- Joint Dispatch Agreement (JDA) Revenue - Revenue is allocated on energy to all jurisdictions (NC Retail, SC Retail and Wholesale) aligning with the costs to generate the sales. Allocation factor 5 (MWH at Generation Level).
- Mitigation Revenue - Direct assign all mitigation revenues to Wholesale Jurisdiction (zero to NC Retail and SC Retail).

## **Section 2.13: Allocators**

### **FACTOR #**

#### **Factors Based on Demand and Energy**

- 1 DEMAND AT GENERATION LEVEL (SYSTEM "PEAK DEMAND")
- 2 DEMAND AT TRANSMISSION LEVEL (TRANSMISSION SYSTEM PEAK)
- 3 DEMAND AT CLASS PEAK (DISTRIBUTION NONCOINCIDENT PEAK)
- 4 DEMAND AT MAXIMUM NONCOINCIDENT PEAK
- 5 MWH AT GENERATION LEVEL
- 6 MWH SALES

#### **Factors Based on Plant**

- 7 TRANSMISSION PLANT
- 8 DISTRIBUTION PLANT
- 9 DISTRIBUTION PLANT EXCLUDING OL AND PL
- 10 GENERAL PLANT
- 11 DISTRIBUTION PLANT RELATED:
  - 11 LAND, STRUCTURES & STATION EQUIPMENT (FERC 360-2)
  - 12 POLES, OVERHEAD CONDUCTORS, & SERVICES (FERC 364-5, 369)
  - 13 UNDERGROUND-CONDUIT, CONDUCTORS & DEVICES (FERC 366-7)
  - 14 LINE TRANSFORMERS (DISTR PLT) (FERC 368)
- 15 GENERAL PLANT EXCLUDING MISCELLANEOUS
- 16 NET PLANT
- 17 REVENUE FROM SALES EXCLUDING NC CATAWBA
- 18 PRODUCTION PLANT
- 19 PRODUCTION PLANT ENERGY FACTOR
- 20 PRODUCTION PLANT EXCLUDING CONTRA AFUDC

#### **Factors Based on Customers and Meters**

- 21 AVERAGE BILLS
- 22 P&T BILLS & DISTRIBUTION BILLS
- 23 METERS (Factor no longer used)
- 24 ADJUSTED TOTAL METERS (P&T)
- 25 AVERAGE BILLS RETAIL (EXCLUDING OL)
- 26 DISTRIBUTION BILLS RETAIL (EXCLUDING OL)
- 27 DISTRIBUTION METERS RETAIL (EXCLUDING OL, PL)
- 28 DISTRIBUTION ENGINEERING ALLOCATION OF 369
- 29 DISTRIBUTION ENGINEERING ALLOCATION OF 370
- 30 DISTRIBUTION ENGINEERING ALLOCATION OF 586

## **Factor #**

### **Miscellaneous Factors**

31 DISTRIBUTION ENGINEERING ALLOCATION OF 597  
32 DISTRIBUTION OPERATING EXPENSE (582-7)  
33 DISTRIBUTION MAINTENANCE EXPENSE (591-8)  
34 CUSTOMER RECORDS AND COLLECTIONS (903)  
35 CUSTOMER ACCOUNTS (902-4)  
36 MISC FACTOR FOR FUTURE USE  
37 REVENUE FROM SALES (COSS uses 38 instead of 37)  
38 REVENUE FROM ENERGY SALES  
39 ELECTRIC OPERATING REVENUE  
40 SC ANNUAL MWH SALES  
41 O&M EXPENSE EXCLUDING FUEL, PURCHASED POWER, AND A&G  
42 MATERIALS AND SUPPLIES  
43 ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION  
44 RATE BASE INCLUDING CWIP  
45 RATE BASE EXCLUDING CWIP  
46 PRE-TAX ACCOUNTING INCOME FROM ELECTRIC OPERATIONS (No longer  
used in COSS)  
47 TAXABLE INCOME FOR STATE INCOME TAX OPERATIONS (No longer  
used in COSS)  
48 O&M EXPENSE EXCLUDING NUCLEAR AND PURCHASED POWER  
49 FEDERAL INCOME TAX OPERATIONS (No longer used in COSS)  
50 STATE INCOME TAX, FEDERAL INCOME TAX, & GENERAL TAXES  
OPERATIONS (No longer used in COSS)  
51 CUSTOMER DEPOSITS (NOT SET UP IN COSS)

### **Wage and Salary Factors**

52 DISTRIBUTION EXPENSE  
53 CUSTOMER ACCOUNTS EXPENSE  
54 CUSTOMER SERVICE & INFO EXPENSE  
55 SALES EXPENSE  
57 OTHER PRODUCTION EXPENSE DEMAND  
58 TRANSMISSION EXPENSE  
59 WAGES AND SALARIES EXCLUDING A&G  
60 TOTAL WAGES AND SALARIES

## **Other Miscellaneous Factors**

62 NET PLANT INCLUDING NUCLEAR FUEL  
64 RATE REVENUE  
65 SAMPLE CHARGE OFF  
66 EXTRA FACILITIES CHARGE REVENUE EX LIGHTING  
67 EXTRA FACILITIES - TRANSMISSION PLANT  
68 WEIGHTED CUSTOMER BASED

### Section 2.13(a): Allocators Detail

**NOTE: PROFORMA ROWS ARE NOT INCLUDED IN FACTORS FOR ALLOCATION PURPOSES.**

FACTOR #

#### **FACTORS BASED ON DEMAND AND ENERGY**

Background information -

- Each factor presented in the COSS report is followed by a "% of system" calculation and most a "% of state" calculation. Some allocations done by COSS are by schedule as a percent of total system, while others are by schedule as a percent of state. The "% of state" is the B version of the factor. When total system numbers are input into the COSS Model, they are allocated on the system version of the stated factor. Likewise, when state total numbers are input into the COSS Model, they are allocated on the B version of the stated factor.

There are also miscellaneous versions of the base allocator that are listed below each allocator. They have been created to meet various levels of allocation required.

#### **Various Allocation Factor calculations:**

**System allocation** = each rate class total divided by the system total

**Retail only** = each retail class divided by retail total

**Wholesale only** = each wholesale class divided by wholesale total

**Direct State allocation** = each state rate class divided by State total

**Direct State Retail allocation** = each state retail rate class divided by State retail total

**Direct State Wholesale allocation** = each state wholesale rate class divided by State wholesale total

**Direct State Retail and Wholesale allocations** = each one a standalone total

**Direct to specific customers** = each specific customer divided by the specific customer totals

**1 DEMAND AT GENERATION LEVEL (SYSTEM PEAK DEMAND) -**

Step 1: On a monthly basis, Load Research provides peak data at generation level by customer class for retail customers. The annual system peak is designated on the applicable month's report.

Step 2: Request from Load Research the Wholesale Monthly Peak Load Report for the same date and hour as the annual system peak. The Total CP with Losses column reflects the generation level demand.

Step 3: Determine wholesale customer peaks. Use the list of deliveries to classify wholesale customers into COSS customer groupings. Adjust values for SEPA and other resources using actual data supplied by Load Forecasting group.

Step 4: Determine Catawba joint owner demand to include based on current contracts.

Step 5: Input peaks into COSS model.

WHERE IS FACTOR 1 REFERENCED IN THE COSS:

DIRECT ASSIGNMENTS:

- Intangible Plant Depr Reserve-Direct	Schedule 3*
- Direct (Accum Deferred Taxes)	Schedule 5

COSS ALLOCATIONS:

- Contra AFUDC (Production Plant)	Schedule 2
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- Gross Production Plant-Demand	Schedule 2
- Gross Production Plant-Clean Air	Schedule 2
- Gross Production Plant-Demand Solar	Schedule 2
- Gross Prod Plant-Direct Demand Solar	Schedule 2
- Gross Prod Plant-Other	Schedule 2
- Gross Distr Plant-371 Cust Premises	Schedule 2
- Gross Gen & Intangible Plt-Production	Schedule 2
- Contra AFUDC (Prod Depr Reserve)	Schedule 3
- Production Plant Depr Reserve-Demand	Schedule 3
- Production Depr Reserve-Clean Air	Schedule 3
- Prod Plant Depr Reserve-Demand Solar	Schedule 3
- Gross Prod Plant-Direct Demand Solar	Schedule 3
- Gross Prod Plant-Direct Other	Schedule 3
- Other & Clean Air - Demand Rel.	Schedule 5
- Reserves-Production	Schedule 5
- Reserves-Demand	Schedule 5
- Land Held for Future Use - Prod Plt	Schedule 5
- Const Work in Progress - Production	Schedule 5
- M&S - Production	Schedule 5
- Prepayments - Allocated	Schedule 5
- Prepayments - Production	Schedule 5
- Other Deferred-Production Plant	Schedule 5
- Oth Fuel-Emission Allow rel & Oth-SC**	Schedule 6
- O&M Recovered through fuel-SC**	Schedule 6
- Net Interchange-Demand	Schedule 6
- Demand Related - SAW Program Costs	Schedule 6
- Purchased Power-Other	Schedule 6
- Other Production Exp-Demand	Schedule 6
- 587-Customer Installation	Schedule 6
- 588-Misc Expenses - Alloc Demand	Schedule 6
- A&G Production-Demand Rel	Schedule 6
- Other (A&G)	Schedule 6
- Adj Merger Condition #23 (A&G)	Schedule 6
- Contra AFUDC (Prod Deprec Exp)	Schedule 7
- Unused	Schedule 7
- Allocated-Demand (Prod Deprec Exp)	Schedule 7
- Unused	Schedule 7
- Unused	Schedule 7
- Production - Demand Solar (Deprec Exp)	Schedule 7
- EA Rel & Oth Demand Rel (G&I)-SC***	Schedule 7
- Other Gen & Intangible Deprec.	Schedule 7

- Production Real Estate & Property Tax      Schedule 8
- Production Amortized Inv Tax Credit      Schedule 9
- Amortized Inv Tax Credit - Other      Schedule 9
- Misc. Other Elec Rev-DSM      Schedule 10
- Misc. Leased Revenue-CERT      Schedule 10
- Parallel Gen B.Std (Standby) Revenue      Schedule 10

\* The amount allocated on this factor is only a component of the total direct.

\*\* NC is allocated on Factor 6, MWH Sales, SC is on Factor 1, Peak Demand.

\*\*\* NC is allocated on Factor 5, MWH at Generation, SC is on Factor 1, Peak Demand.

Note:      Based on the Cost of Service Methodology (CP, SWPA, etc.), determines what amount of production plant is to be allocated on demand vs. energy. When doing a SWPA study, the 1 CP allocator will change to be a demand-energy weighted ratio.

## 2      DEMAND AT TRANSMISSION LEVEL (SYSTEM TRANSMISSION PEAK DEMAND)-

Step 1:      Demand at Transmission Level is the highest peak on the transmission system for the year (usually the same date and time as Summer System Peak). This peak includes Catawba, Network customers and the demand for any long term contracts. The long term contract data is received from Bulk Power Accounting.

WHERE IS FACTOR 2 REFERENCED IN THE COSS:

### DIRECT ASSIGNMENTS:

- Transmission Plant-Direct      Schedule 2
- Intangible Plant Depr Reserve-Direct      Schedule 3\*

### COSS ALLOCATIONS:

- Contra AFUDC (Trans Plant)      Schedule 2
- Transmission Plant - Other      Schedule 2
- Transmission Plant - Allocated      Schedule 2
- Transmission Plant - Other      Schedule 2
- Gross Gen & Intangible Plt-Transm      Schedule 2

- Contra AFUDC (Trans Depr Reserve)	Schedule 3
- Transmission Deprec Reserve-Other	Schedule 3
- Transmission Deprec Reserve Allocated	Schedule 3
- Reserves-Transmission	Schedule 5
- Land Held for Future Use - Trans Plt	Schedule 5
- Const Work in Progress - Transmission	Schedule 5
- M&S - Transmission	Schedule 5
- Prepayments - Transmission	Schedule 5
- Deferred-Transmission Plant	Schedule 5
- Transmission O&M - Allocated	Schedule 6
- Misc. Adjustments Transmission O&M	Schedule 6
- Other Transmission O&M	Schedule 6
- A&G Transmission	Schedule 6
- Contra AFUDC (Trans Deprec Exp)	Schedule 7
- Transmission Depreciation Exp-Alloc	Schedule 7
- Transmission Real Estate & Prop Tax	Schedule 8
- Transmission Amortized Inv Tax Credit	Schedule 9
- 454-Other Operating Revenue	Schedule 10
- Tower Lease & Other Demand Rel	Schedule 10

\* The amount allocated on this factor is only a component of the total direct.

### 3 DISTRIBUTION DEMAND AT CLASS PEAK -

Step 1: Class Peak is the same as Factor 4 - Demand at Maximum Noncoincident Peak except for non-residential rate schedules where you have transmission and distribution served customers. The Class Peak factor only incorporates the distribution piece.

NOTE: Factor 3 excludes wholesale because Cost Studies directly assigns their Distribution Plant (e.g. see acct 371 in distplt file).

WHERE IS FACTOR 3 REFERENCED IN THE COSS:

#### COSS ALLOCATIONS:

- Distribution Plant Acct 364-Alloc*	Schedule 2
- Distribution Plant Acct 365-Alloc	Schedule 2
- Distribution Plant Acct 366-Alloc	Schedule 2
- Distribution Plant Acct 367-Alloc	Schedule 2

\*If minimum system number is negative, allocator is Dbills\_xOL

#### 4 DEMAND AT MAXIMUM NONCOINCIDENT PEAK -

Step 1: On a monthly basis, Load Research provides maximum noncoincident peak data at customer level. Apply the appropriate loss factors provided by Load Research to arrive at noncoincident peak demands at distribution level.

Step 2: Compare the demands for the year to find the highest demand for each rate SCHEDULE. Input these demands into the COSS Model.

NOTE: Factor 4 excludes wholesale because Cost Studies directly assigns their Distribution Plant.

#### WHERE IS FACTOR 4 REFERENCED IN THE COSS:

##### COSS ALLOCATION:

- Distribution Plant Acct 360-Alloc	Schedule 2
- Distribution Plant Acct 361-Alloc	Schedule 2
- Distribution Plant Acct 362-Alloc	Schedule 2
- Distribution Plant Acct 368-Alloc	Schedule 2

#### 5 MWH AT GENERATION LEVEL -

##### Background information -

- The basis for the computation of this factor is the per book KWH at customer meter information which is supplied to Cost Studies by Revenue Analysis section. These KWH are available by rate CODE. For Cost of Service purposes, Duke's supply system is divided into six loss groups depending on the delivery position in the transmission/distribution chain. Cost Studies must divide the KWH for each rate code into its loss group components. All residential rate codes are defined as loss groups 3 and 5 only. Catawba buyers'

deliveries are comprised of loss groups 1 and 2. Non-Catawba and all non-residential rate codes are comprised of loss groups 1, 2, 4, and 6.

All wholesale customers are billed using the OATT which has a contractual loss rate of 3%. In order to reflect this in the COSS, all wholesale customers use 3% losses and the above loss groups are only used to develop separation factors for loss groups 3,4,5 and 6.

- Calculate KWH at customer meter for loss groups 1 and 2:

Step 1: KWH for loss group 1 (100Kv) and loss group 2 (44Kv) are provided by Load Research . Take the actual test period KWH at customer meter and subtract loss group 1 sum and loss group 2 sum. For non-residential, the remaining portion is the combined total for loss groups 4 + 6 or distribution.

Step 2: Schedule 10A sales are split into loss groups and used to develop the Separation Factor for loss groups 3, 4, 5, and 6.

Step 3: Catawba MWH sales are split into loss groups and used to develop the Separation Factor for loss groups 3, 4, 5, and 6.

Step 4: Add the results of Steps 1, 2, and 3 to arrive at total KWH at customer meter for loss groups 1 and 2.

- Calculate KWH @ customer meter for loss groups 3 and 5:

Step 5: Sum all residential rate code KWH at customer meter from Revenue Analysis section.

- Calculate KWH @ customer meter for loss groups 4 and 6:

Step 6: Total KWH sales at customer meter (from Revenue Analysis section) minus Step 4, minus Step 5 equals total KWH at customer meter for loss groups 4 and 6.

- Calculate loss factors for the six loss groups:

Step 7: For any given test period, Cost Studies must obtain information on the average loss for each of the ten segments of the transmission - distribution system. We receive losses for each of the six transmission segments from System Planning upon request. By reviewing the "Distribution Loss Summary", we can obtain the total average loss percentage for the distribution system. Split the total loss into the four distribution segments (primary, service, secondary, and transformer) based on the most recent Distribution Engineering study furnished to Cost Studies.

Step 8: While no adjustments are necessary to transmission losses, three of the four distribution segments require an adjustment. As load factors increase, energy distribution losses will also increase. Cost Studies adjusts the losses for the primary, service, and transformer segments from Step 7 to differentiate between residential and nonresidential load factors. No adjustment is made to the secondary segment because it is strictly a residential loss. Compute the load factors for the residential (loss groups 3 and 5), non-residential (loss groups 4 and 6), and total distribution (loss groups 3, 4, 5, and 6) by using the equation:

$$\text{Load Factor} = \frac{\text{KWH @ Cust meter (Steps 5 \& 6)}}{\frac{\text{Sys Pk @ Cust meter}}{8760 (\# \text{ of hrs in the test period year})}}$$

NOTE: Based on the information available, this is how load factors are calculated for use in the development of losses.

Compute the residential and non-residential components of the primary, service, and transformer loss factors using the equations:

RESIDENTIAL COMPONENT =

$$\frac{\text{Residential Load Factor}}{\text{Total Distr Load Factor}} \times \text{Total Segment Loss}$$

NON-RESIDENTIAL COMPONENT =

$$\frac{\text{Non-residential Load Factor}}{\text{Total Distr Load Factor}} \times \frac{\text{Total Segment Loss}}$$

Step 9: Input the ten losses from Steps 7 and 8 into the spreadsheet which calculates the total energy loss factors for the six groups (loss inputs have two components - residential and non-residential).

NOTE: The total energy loss for each group calculated in this step is a combination of some or all of the ten losses from Steps 7 and 8.

- Calculate the split of loss groups 3 - 6:

Step 10: To split the distribution loss groups between 3 and 4, and 5 and 6, we use the "Energy Loss Summary" from System Planning, the loss factors from Step 9, and our split of loss groups 1 and 2. The spreadsheet combines this information to determine the percentage of distribution KWH at customer meter from loss groups 3 and 4, and 5 and 6.

- Calculate the MWH at generation level factor:

Step 11: Group the residential information from Step 5 by rate schedule. Split each rate schedule into loss groups 3 and 5 based on percentages from Step 10. Apply the appropriate losses from Step 9; then add the two KWH portions to arrive at total KWH at generation level for each schedule.

Step 12: Group the non-residential retail information from Step 1 by rate schedule and loss group. Since Step 1 provides the KWH for loss group 1, the KWH for loss group 2, and the KWH for loss groups 4 and 6 combined, use the percentages from Step 10 to split 4 and 6. Apply the appropriate loss factors.

Step 13: Wholesale data is received at generation level. Apply the 3% loss to calculate down to customer level.

Step 14: Input Factor 5 into the COSS Model from the results of Steps 11 - 13.

NOTE: Steps 1 - 13 deal with customer meter energy in the form of KWH. After losses are applied, the numbers are divided by 1000 to convert to MWH for input into COSS.

WHERE IS FACTOR 5 REFERENCED IN THE COSS:

DIRECT ASSIGNMENTS:

- Fuel Clause (Over/Under) Schedule 11  
(Included in Revenue - not a separate item)

COSS ALLOCATIONS:

- Production Plant - Energy Schedule 2
- Nuclear Fuel (120.2) Schedule 2
- Nuclear Fuel (120.3) Schedule 2
- Nuclear Fuel (120.4) Schedule 2
- Gen & Intangible Plt-Energy Schedule 2
  
- Production Depr Reserve-Energy Schedule 3
- Nuclear Fuel Burned (120.5) Schedule 3
  
- Reserves-Energy Schedule 5
- Fuel Stock-Coal Schedule 5
- Fuel Stock-Oil Schedule 5
- M&S-Emission Allow Inv Schedule 5
- M&S Renewable Energy Credit Schedule 5
- Prepayments - Other Schedule 5
- Other Deferred - Alloc Energy Schedule 5
- Other Deferred Schedule 5
  
- Line Loss Schedule 6
- Other Fuel-Fossil Schedule 6
- Net Interchange-Energy Schedule 6
- Other Production Exp-Energy Schedule 6
- NC Incremental Renewable Fuel Schedule 6
- RECS Consumption Expense Schedule 6
- Advanced Energy (A&G) Schedule 6
- Coastal Wind (A&G) Schedule 6
  
- Depreciation Expense - Energy Schedule 7
- EA Related & other (G&I Depr Exp)\* Schedule 7
- EPA Auction Amortization Schedule 7
  
- Other Revenue Related-Energy Schedule 8
- Sales & Use Tax Schedule 8

- Amortized Invest Tax Cr-Energy                      Schedule 9
- 456-Misc Other Elec Rev-Energy                      Schedule 10

\* NC is allocated on Factor 5, MWH at Generation; SC is on Factor 1, Peak Demand.

## 6 MWH SALES -

Step 1: Cost Studies develops this factor as part of the process for developing Factor 5. Input into COSS the rate schedule amounts from Steps 11, 12, and 13 in Factor 5.

WHERE IS FACTOR 6 REFERENCED IN THE COSS:

DIRECT ASSIGNMENTS:

- Accum. Deferred Taxes - Direct                      Schedule 5
- Revenue from Transmission of Rev                      Schedule 10

COSS ALLOCATION:

- Accum. Deferred Taxes - Energy                      Schedule 5
- Reserves - Energy                      Schedule 5
- Other Deferred - Energy Rel                      Schedule 5
- RECS and REPS - Energy                      Schedule 5
  
- Fossil Fuel Expense                      Schedule 6
- Nuclear Fuel Disposal Cost                      Schedule 6
- Nuclear Fuel Expense                      Schedule 6
- Fuel Exp Directly Assigned                      Schedule 6
- Fuel Exp Directly Assigned                      Schedule 6
- Fuel in Purchase Power & Interchange                      Schedule 6
- Line Loss                      Schedule 6
- Other Fuel-Nuclear                      Schedule 6
- Other Fuel-Emission Allow Rel & Other\*                      Schedule 6
- Other Production Expense                      Schedule 6
- Purchase Power Recovered thru Fuel                      Schedule 6
- O&M Recovered through Fuel\*                      Schedule 6
- Energy Related Saws Costs                      Schedule 6
- Other Production Expense                      Schedule 6
- Transmission O&M Expense - Allocated                      Schedule 6
- 928-Regulatory Commission (A&G)                      Schedule 6
- A&G - BPM Salaries                      Schedule 6
  
- Other Revenue Related Tax - Direct                      Schedule 8
  
- 456-Other Revenue Energy Rel.                      Schedule 10
- 456-Other Revenue Energy Rel.                      Schedule 10

- Unbilled Revenue	Schedule 10
- BPM-Current Year Deferral	Schedule 10
- BPM-Prior Year Deferral	Schedule 10

\* NC is allocated on Factor 6, MWH Sales, SC is on Factor 1, Peak Demand.

## Factors Based on Plant

### 7 TRANSMISSION PLANT -

Step 1: COSS develops Factor 7 from Schedule 2 Gross Transmission Plant In Service total.

WHERE IS FACTOR 7 REFERENCED IN THE COSS:

COSS ALLOCATION:

Factor 7 is currently not used.

### 8 DISTRIBUTION PLANT -

Step 1: COSS develops Factor 8 from Schedule 2 Gross Distribution Plant In Service total.

WHERE IS FACTOR 8 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Distr Plant Contra AFUDC	Schedule 2
- Distr General & Intangible Plant	Schedule 2
- Distr Plt - Reserves	Schedule 5
- Distr Plt Held for Future	Schedule 5
- Distr Construction Work in Progress	Schedule 5
- Prepayments - Distribution	Schedule 5
- Distr Deferred Items (CWC)	Schedule 5
- Distr Functionalized A&G	Schedule 6
- Distr Contra AFUDC	Schedule 7
- Distr Depreciation Exp - Alloc	Schedule 7
- Distr Real Estate & Property Tax	Schedule 8
- Distr ITC Amortized	Schedule 9
- Oth Rev-CIAC & Oth Distr Rel	Schedule 10

**9 DISTRIBUTION PLANT EXCLUDING OL AND PL -**

Step 1: COSS develops Factor 9 by taking the rate schedule amounts from Factor 8, but excluding schedules OL and PL.

WHERE IS FACTOR 9 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Distribution Material & Supplies Schedule 5

**10 GENERAL PLANT -**

Step 1: COSS develops Factor 10 from Schedule 2 Gross General Plant In Service total.

WHERE IS FACTOR 10 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- General Plant - Contra AFUDC Schedule 2  
- Misc General Plant Schedule 2

- General Accum Deprec-Alloc Schedule 3  
- General Accum Deprec-State Direct Schedule 3  
- General Plant Deprec - Contra AFUDC Schedule 3  
- Intangible Plant Deprec - Contra AFUDC Schedule 3

- General Plt Reserves Schedule 5  
- General Plt Held for Future Use Schedule 5  
- General Construction Work in Progress Schedule 5  
- General Material & Supplies Schedule 5  
- Prepayments - General Plant Schedule 5  
- General Deferred Items Schedule 5

- Functionalized A&G-General Schedule 6  
- A&G - Maint of General Plt (Acct 935) Schedule 6

- General Plt Deprec Exp - Contra AFUDC Schedule 7  
- EDP Depreciation Exp Schedule 7  
- General Depreciation Exp-Allocated Schedule 7

- General Property Tax Schedule 8  
- General ITC Amortized Schedule 9

**11 LAND, STRUCTURES, AND STATION EQUIPMENT**  
(DISTRIBUTION PLANT 360 - 362) -

Step 1: COSS develops Factor 11 which is the sum of  
Schedule 2 Gross Distribution Plant FERC Accounts  
360 - 362.

WHERE IS FACTOR 11 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 582 Substation Oper O&M Schedule 6
- Acct 591 Structures Oper O&M Schedule 6
- Acct 592 Substation Equipment-Mtc O&M Schedule 6

**12 POLES, OVERHEAD CONDUCTORS, AND SERVICES**  
(DISTRIBUTION PLANT 364, 365, AND 369) -

Step 1: COSS develops Factor 12 which is the sum of  
Schedule 2 Gross Distribution Plant FERC Accounts  
364, 365 and 369.

WHERE IS FACTOR 12 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 583 Overhead Lines - Oper O&M Schedule 6
- Acct 593 Overhead Lines - Mtc O&M Schedule 6
  
- Acct 454 Pole Attachments - Other Rev Schedule 10

**13 UNDERGROUND - CONDUIT, CONDUCTORS, AND DEVICES**  
(DISTRIBUTION PLANT 366 AND 367) -

Step 1: COSS develops Factor 13 which is the sum of  
Schedule 2 Gross Distribution Plant FERC Accounts  
Acct 366 and Acct 367.

WHERE IS FACTOR 13 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 584 Underground Lines - Oper O&M Schedule 6
- Acct 594 Underground Lines - Mtc O&M Schedule 6

**14 LINE TRANSFORMERS**  
(DISTRIBUTION PLANT 368) -

Step 1: COSS develops Factor 14 by taking the sum of  
Schedule 2 Gross Distribution Plant FERC Account  
368.

WHERE IS FACTOR 14 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 595 Line Transformer - Mtc O&M Schedule 6

**15 GENERAL PLANT EXCLUDING MISCELLANEOUS -**

Step 1: COSS develops Factor 15 which is the sum of  
Schedule 2 Gross General & Intangible Plant items  
excluding Miscellaneous.

WHERE IS FACTOR 15 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Miscellaneous General Plant Schedule 2

**16 NET PLANT -**

Step 1: COSS develops Factor 16 which is equal to Schedule  
2 (Gross Electric Plant in Service) minus Schedule  
3 (Total Depreciation Reserve) or Factor 16 =  
Schedule 4 (Net Electric Plant in Service).

A variation of Factor 16 is Net Plant including  
Nuclear Fuel, see Factor 62.

WHERE IS FACTOR 16 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Accumulated Deferred Taxes	Schedule 5
- Accumulated Deferred Taxes-Allocated	Schedule 5
- Reserves-Other	Schedule 5
- Land Held for Future Use-Other	Schedule 5
- Deferred Items-Net Plant Related	Schedule 5
- Other Deferred-Lighting	Schedule 5
- Prepayments - Net EPIS	Schedule 5
- Other - Functionalized A&G	Schedule 6

**17 REVENUE FROM SALES EXCLUDING NC CATAWBA -**

Step 1: The COSS develops Factor 17 which is equal to the sum of per book retail revenue and 10A revenue. Factor 17 excludes North Carolina Catawba. (NOTE: Factor 17 is NET of Load Control or IS credit)

WHERE IS FACTOR 17 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Franchise Taxes Schedule 8

**18 PRODUCTION PLANT -**

Step 1: COSS develops Factor 18 which is the sum of Schedule 2 Gross Production Plant items.

WHERE IS FACTOR 18 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Currently not being used.

**19 PRODUCTION PLANT ENERGY FACTOR -**

Step 1: Divide Factor 5 by the number of hours in the test period (8760 or 8784 for Leap Year) and multiply result by 1000 for each rate schedule. Input this information into the COSS Model.

WHERE IS FACTOR 19 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- No longer used. Currently using Factor 5, Generation MWH.

**20 PRODUCTION PLANT EXCLUDING CONTRA AFUDC -**

Step 1: COSS develops Factor 20 which is the sum of Schedule 2 Production Direct, Production Plant-Demand, Production Plant-Energy.

WHERE IS FACTOR 20 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Not Currently being used.

## **Factors Based on Customers and Meters**

### **21 AVERAGE BILLS -**

- Step 1: Obtain from Revenue Analysis section the total bills by rate code for the test period.
- Step 2: Group the rate codes into Cost of Service rate schedules.
- Step 3: Divide the rate schedule totals by 12 to arrive at an average monthly number of customers which is input into the COSS Model.

WHERE IS FACTOR 21 REFERENCED IN THE COSS:

#### **DIRECT ASSIGNMENTS:**

- |                                      |            |
|--------------------------------------|------------|
| - Acct 903 Cust Records & Collection | Schedule 6 |
| - Acct 908 Customer Assistance       | Schedule 6 |
| - Acct 909 Info & Instr Adv          | Schedule 6 |

#### **COSS ALLOCATIONS:**

- |                                   |            |
|-----------------------------------|------------|
| - Distribution - Intangible Plant | Schedule 2 |
| - Acct 587 Customer Installations | Schedule 6 |
| - Acct 598 Misc Distribution Exp  | Schedule 6 |
| - Acct 910 Misc Customer Serv     | Schedule 6 |
| - Acct 911-916 Misc Sales Exp     | Schedule 6 |
| - Sales Other (excl Lts)          | Schedule 6 |

### **P&T BILLS & DISTRIBUTION BILLS**

#### **P&T BILLS -**

- Step 1: Obtain from Revenue Analysis section the Transmission Bills by rate schedule for one month in the test period excluding OL.
- Step 2: This one month is used as an average and becomes the input into COSS.

### **22 DISTRIBUTION BILLS -**

- Step 1:  $\text{Distribution Bills} = \text{Total (Factor 21)} - \text{P\&T Bills}$

WHERE IS FACTOR 22 REFERENCED IN THE COSS:

DIRECT ASSIGNMENTS:

- Factor 22 is used to create factor 26; factor 22 is also used in the billrev input file.

**23 P&T METERS (ADDITIONAL)**

NOTE: FACTOR 23 IS NO LONGER USED.

DISTRIBUTION METERS (ADDITIONAL) -

Note: Additional P&T Meters and Distribution Meters no longer needed. Each individual meter is now read through AMS (Automated Metering Service) and not using totalizers.

**24 P&T METERS (ADJUSTED TOTAL METERS-(P&T))**

Note: With the removal of Factor 23 this is now equal to Factor 21 (or sum of Factor 22).

Sum of P&T Bills (Factor 22) and P&T Meters  
Additional (Factor 23).

ADJUSTED TOTAL METERS (DISTRIBUTION) -

Sum of Distribution Bills (Factor 22) and  
Distribution Bills Additional (Factor 23).

ADJUSTED TOTAL METERS -

Sum of Adjusted Total Meters (P&T) and Adjusted  
Total Meters (Distribution).

WHERE IS FACTOR 24 REFERENCED IN THE COSS:

DIRECT ASSIGNMENTS:

- Acct 370 Meters Schedule 2

ALLOCATED:

- Acct 902 Meter Reading Schedule 6

Note: For Acct 902, Allocator 24 excludes OL, GL & PL.

**25 AVERAGE BILLS - RETAIL (EXCLUDING OL) -**

Step 1: COSS develops Factor 25 by taking the rate schedule amounts from Factor 21 excluding OL.

WHERE IS FACTOR 25 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 368 Line Transformer (Min Sys)\*      Schedule 2

\*If 368-allocated is negative, then uses Factor 25.

**26      DISTRIBUTION BILLS - RETAIL (EXCLUDING OL) -**

Step 1:      COSS develops Factor 26 by taking the rate schedule amounts from Factor 22 - Distribution (excluding OL).

WHERE IS FACTOR 26 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 364 Poles, Towers (Min Sys)\*              Schedule 2

- Acct 365 OH Conduct (Min Sys)\*              Schedule 2

\*If 364/365-allocated is negative, then uses Factor 26.

**27      DISTRIBUTION METERS - RETAIL (EXCLUDING OL, PL) -**

Step 1:      COSS develops Factor 27 by taking the rate schedule amounts from Factor 24 - Adjusted Total Meters Distribution (excluding OL, PL).

WHERE IS FACTOR 27 REFERENCED IN THE COSS:

DIRECT ASSIGNMENT:

NOT REFERENCED: Not used in COSS main file.

**Miscellaneous Factors**

**28      DISTRIBUTION ENGINEERING ALLOCATION OF 369 -**

Step 1:      Power Delivery supplies an average cost per customer.

Step 2:      Apply the average cost per customer to the number of distribution bills for each schedule in each state. Input the factor into the COSS Model.

WHERE IS FACTOR 28 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 369 Services Schedule 2

- 29** Note: Allocator 29-31 were all the same in the Bilrev file. In COSS we only created 1 allocator pulling in the Factor 29 info and called it Eng\_Aloc. The factors 30-31 were deleted.

COSS ALLOCATIONS:

- Acct 370 Meters Schedule 2

- Acct 586 Meters - Operation Schedule 6

- Acct 597 Meters - Maintenance Schedule 6

**32 DISTRIBUTION OPERATING EXPENSE (582 - 587) -**

Step 1: COSS develops Factor 32 which is the sum of  
Schedule 6 FERC Accounts 582-585.

WHERE IS FACTOR 32 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 580 Supervision Schedule 6

- Acct 588 Miscellaneous-Operation Schedule 6

- Acct 589 Rents Schedule 6

**33 DISTRIBUTION MAINTENANCE EXPENSE (591 - 598) -**

Step: 1: COSS develops Factor 33, which is the sum of  
Schedule 6 FERC Accounts 591-592.

WHERE IS FACTOR 33 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 590 Supervision Schedule 6

**34 CUSTOMER RECORDS AND COLLECTIONS (903) -**

Step 1: COSS develops Factor 34 by taking the rate schedule  
amounts from Schedule 6 Customer Records &  
Collections, FERC 903.

WHERE IS FACTOR 34 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Gen & Intangible - Customer Accounting Schedule 2

**35 CUSTOMER ACCOUNTS (902 - 904) -**

Step 1: COSS develops Factor 35, which is the sum Schedule 6 FERC Accounts 902-904 for retail rate schedules only.

WHERE IS FACTOR 35 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 901 Supervision	Schedule 6
- Acct 905 Misc. Cust Account Exp	Schedule 6

**36 MISC FACTOR FOR FUTURE USE -**

NOTE: At present this factor is not being used.

**37 REVENUE FROM SALES**

Note: Factor 37 is currently not used in COS.

NOTE: This is the same as Factor 38. It does not pull into the COSS but Factor 38 does.

**38 REVENUE FROM ENERGY SALES -**

Step 1: COS Revenue = Per Book Revenue + add back of Load Control & IS Credits - load management credits allocated on Demand at Generation (Peak) to all rates (allocation done in syspk.xls file).

WHERE IS FACTOR 38 REFERENCED IN THE COSS:

DIRECT:

- Intangible Plant Depr Reserve-Direct	Schedule 3*
--	-------------

COSS ALLOCATIONS:

- Customer Deposits-Allocated	Schedule 5
- Rev Rel Taxes-Municipal Licenses	Schedule 8
- Rev Rel Taxes-Other	Schedule 8

\* Intangible Plant-direct is allocated on factor 38 but is only a component of the total direct.

**39 ELECTRIC OPERATING REVENUE -**

Step 1: COSS develops this factor by taking Factor 38, Revenue from Energy Sales, plus Schedule 10, Other Revenue.

WHERE IS FACTOR 39 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- NCUC Fees (A&G) Schedule 6

**40 SC ANNUAL MWH SALES -**

Step 1: Refer to the information used to develop Factor 6. Record the MWH Sales information for all SC rate schedules except industrial related.

Step 2: Substitute 2,558,130 (1958 Base) for SC Industrial MWH. In order to split the 1958 Base amount to all Industrial rate schedules, use their actual MWH Sales to develop percentages. Since OPT-I is an Industrial related schedule, it is included when developing the Industrial percentages. These OPT customers were at one point Industrial customers.

Step 3: Combine Steps 1 and 2 and input into the COSS Model as Factor 40.

Background information -

- In 1958, the SC Tax Commissioner's Office created the SC MWH Tax. From that date all SC MWH sales would be subject to the tax with the exception of those MWH that came in the industrial class as a result of growth after that date. This judgment established 1958 annual MWH sales as a taxable sales base for the industrial class (2,558,130 MWH). As a result

the MWH listed in Step 2 will remain constant for this factor in cost of service studies unless the tax is revised.

WHERE IS FACTOR 40 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- SC MWH Tax Schedule 8

**41 O&M EXPENSE EXCLUDING FUEL, PURCHASED POWER, AND A&G -**

Step 1: COSS develops Factor 41, which is the sum of Schedule 6 Other Production Expense (including directly assigned, energy related and demand related) plus O&M recovered through fuel plus Total Transmission O&M plus Total Distribution O&M, Total Customer Accounts plus line Total Customer Service & Info plus Total Sales.

Background information -

- The purpose of this allocator is to allocate A&G Related O&M expense. To develop this allocator not all Production O&M items are included. Fuel items, Interchange and Purchase Power items are excluded.

WHERE IS FACTOR 41 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- |                               |             |
|-------------------------------|-------------|
| - Prepayments - O&M Expense   | Schedule 5  |
| - A&G Related O&M Expense     | Schedule 6  |
| - A&G - EPRI                  | Schedule 6* |
| - A&G - Other General Expense | Schedule 6  |

\* EPRI is allocated on Factor 41 excluding 10A amounts

**42 MATERIALS AND SUPPLIES -**

Step 1: COSS develops Factor 42 by taking the rate schedule amounts from Schedule 5 Total Plant Material & Supplies.

WHERE IS FACTOR 42 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- |                               |             |
|-------------------------------|-------------|
| - Sale of Material & Supplies | Schedule 10 |
|-------------------------------|-------------|

**43 ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION -**

Step 1: This Factor is not currently set up in the COSS.

WHERE IS FACTOR 43 REFERENCED IN THE COSS:

COSS ALLOCATIONS: Not currently being used.

**44 RATE BASE INCLUDING CWIP:**

Step 1: COSS develops Factor 44 which is Schedule 5 Total Rate Base excluding Cash, FIT Accruals and Average Tax Accruals.

WHERE IS FACTOR 44 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Bond Premiums Schedule 5
- Cash-Allocated Schedule 5
- Other Interest Expense-Allocated Schedule 9

**45 RATE BASE EXCLUDING CWIP -**

Step 1: COSS develops Factor 45 which is Schedule 5 Total Rate Base excluding CWIP, Bond Premiums, Cash, FIT Accruals and Average Tax Accruals.

WHERE IS FACTOR 45 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Bond Premiums - Allocated Schedule 5
- Special Deposits & working Funds Schedule 5

**48 O&M EXPENSE EXCLUDING NUCLEAR AND PURCHASED POWER -**

Step 1: COSS develops Factor 48 by taking the Schedule 6 Total O&M Expense rate schedule amounts (including A&G) minus Production O&M Nuclear Fuel Expense and Purchase Power amounts. It does include Nuclear Fuel Disposal Cost.

WHERE IS FACTOR 48 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Other Cash Requirement-Allocated Schedule 5

**48c O&M excluding A&G for Retail and for Wholesale**

Step 1 - COSS develops Factors 48c for Retail and for Wholesale by taking Schedule 6 Subtotal O&M excl. A&G.

WHERE IS FACTOR 48c REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Average Tax Accrual

Schedule 5

**51 CUSTOMER DEPOSITS - NOT SET UP IN COSS**

NOTE: This factor was used to calculate Interest on Customer Deposits, but it is now allocated on charge off calculation.

**Wage and Salary Factors**

**52 DISTRIBUTION EXPENSE -**

Step 1: COSS develops Factor 52 by taking the rate schedule amounts from Schedule 6, Total Distribution Expense.

**DISTRIBUTION WAGES AND SALARIES -**

Step 1: Input into COSS the total system amount of Distribution Wages and Salaries to be allocated on Factor 52 - Distribution Expense. The total comes from Regulatory Accounting.

WHERE IS FACTOR 52 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- A&G Exp Rel to S&W-Distribution

Schedule 6

**53 CUSTOMER ACCOUNTS EXPENSE -**

Step 1: COSS develops Factor 53 by taking the rate schedule amounts from Schedule 6, Total Customer Acct Expense.

**CUSTOMER ACCOUNTS WAGES AND SALARIES -**

Step 1: Input into COSS the total system amount of Customer Accounts Wages and Salaries, to be allocated on Factor 53 - Customer Accounts Expense. The total comes from Regulatory Accounting.

WHERE IS FACTOR 53 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- A&G Exp Rel to S&W-Cust Accts

Schedule 6

**54 CUSTOMER SERVICE & INFO EXPENSE -**

Step 1: COSS develops Factor 54 by taking the rate schedule amounts from Schedule 6, Total Customer Service & Information Expense.

**CUSTOMER SERVICE & INFO WAGES AND SALARIES -**

Step 1: Input into COSS the total system amount of Customer Service Wages and Salaries, to be allocated on Factor 54 - Customer Service Expense. The total comes from Regulatory Accounting.

WHERE IS FACTOR 54 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- A&G Exp Rel to S&W-Cust Serv & Info      Schedule 6

**55 SALES EXPENSE -**

Step 1: COSS develops Factor 55 by taking the rate schedule amounts from line Schedule 6, Total Sales Expense.

**SALES WAGES AND SALARIES -**

Step 1: Input into COSS the total system amount of Sales Wages & Salaries, to be allocated on Factor 55 - Sales Expense. The total comes from Regulatory Accounting.

WHERE IS FACTOR 55 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- A&G Exp Rel to S&W-Sales      Schedule 6

**56 DISTR WAGES AND SALARIES -**

Step 1: COSS develops Factor 56, which is the sum of Wages and Salaries allocations for: Distribution (Factor 52), Customer Accounts (Factor 53), Customer Service & Info (Factor 54), and Sales (Factor 55).

WHERE IS FACTOR 56 REFERENCED IN THE COSS:

COSS ALLOCATIONS:

- Acct 931 Rents (A&G)      Schedule 6

**57 OTHER PRODUCTION EXPENSE - DEMAND**

Step 1: COSS develops Factor 57 by taking the rate schedule amounts from Schedule 6, Other Production - Demand-Related O&M.

**POWER PRODUCTION WAGES AND SALARIES -**

Step 1: Input into COSS the total system amount of Power Production Wages and Salaries, to be allocated on Factor 57 - Other Production Expense. The total comes from Regulatory Accounting.

WHERE IS FACTOR 57 REFERENCED IN THE COSS:

**COSS ALLOCATIONS:**

- A&G Exp Rel to S&W-Production Schedule 6

**58 TRANSMISSION EXPENSE -**

Step 1: COSS develops Factor 58 by taking the rate schedule amounts from Schedule 6, Total Transmission O&M.

**TRANSMISSION WAGES AND SALARIES -**

Step 1: Input into COSS the total system amount of Transmission Wages and Salaries, to be allocated on Factor 58 - Transmission Expense. The total comes from Regulatory Accounting.

WHERE IS FACTOR 58 REFERENCED IN THE COSS:

**COSS ALLOCATIONS:**

- A&G Exp Rel to S&W-Transmission Schedule 6

**59 WAGES AND SALARIES EXCLUDING A&G -**

Step 1: COSS develops Factor 59, which is the sum of wages and salaries allocations for: Subtotal Wages and Salaries (Factor 56), Power Production (Factor 57), and Transmission (Factor 58).

WHERE IS FACTOR 59 REFERENCED IN THE COSS:

**DIRECT ASSIGNMENTS:**

- Intangible Plant Depr Reserve-Direct Schedule 3\*

COSS ALLOCATIONS:

- Wages & Salaries Rel-Gen & Intg	Schedule 2
- Reserves-Wage & Salary Related	Schedule 5
- Deferred Items Rel Wage & Sal	Schedule 5
- Pensions and VOP Costs	Schedule 5
- Required Pension Funding	Schedule 5
- A&G Rel Wage & Salary	Schedule 6
- Pensions and Benefits - A&G	Schedule 6
- Fed, SS & Unemployment, Workmen's Comp	Schedule 8
- Payroll Taxes - State Direct	Schedule 8
- 454-Rent from Real Estate	Schedule 10
- 456-Service Provided to Others	Schedule 10

\* The amount allocated on this factor is only a component of the total direct.

A&G WAGES AND SALARIES -

Step 1: Input into COSS the total system amount of A&G Wages and Salaries, to be allocated on Factor 59 - Wages and Salaries excluding A&G. The total comes from Regulatory Accounting.

**60 TOTAL WAGES AND SALARIES -**

Step 1: COSS develops Factor 60, which is the sum of Wages and Salaries allocations for: Wages & Salaries excluding A&G plus A&G Wages & Salaries (both from Factor 59 calculation).

WHERE IS FACTOR 60 REFERENCED IN THE COSS: NOT REFERENCED.

**OTHER MISCELLANEOUS FACTORS**

**62 NET PLANT INCLUDING NUCLEAR FUEL -**

Step 1: COSS develops Factor 62 which is equal to Schedule 2 (Gross Electric Plant in Service including Nuclear Fuel) minus Schedule 3 (Total Depreciation Reserve including Nuclear Fuel).

WHERE IS FACTOR 62 REFERENCED IN THE COSS:

COSS ALLOCATIONS

- Accumulated Deferred Income Taxes	Schedule 5
- Accum Deferred Income Taxes Alloc	Schedule 5
- Reserves-Other	Schedule 5
- Deferred Items-Net Plant Rel.	Schedule 5
- Deferred Items-Other Deferred	Schedule 5

**63 A&G -**

Step 1: COSS develops Factor 63 but it is not used.

**64 RATE REVENUE -**

(FERC 440, 442, 444, 445, and 447)

Step 1: Based on information from the Revenue Analysis Section of Rates, add Per Book Load Control and Interruptible Credits back to Per Book Revenue from Energy Sales to arrive at Rate Revenue. All rates are as if these credits had not existed.

WHERE IS FACTOR 64 REFERENCED IN THE COSS:

COSS ALLOCATIONS

- Acct 451 Misc Service Revenues	Schedule 10
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**65 SAMPLE CHARGE OFF -**

Step 1: A sample charge off report from Customer Accounting identifies charge offs by rate schedules on a system basis and represents uncollectible accounts from Greensboro, Charlotte, and Greenville.

WHERE IS FACTOR 65 REFERENCED IN THE COSS:

- Customer Deposits-Allocated	Schedule 5
- Interest on Customer Deposits	Schedule 9
- Acct 450 Late Payment Charge	Schedule 10

**66 EXFAC REV -**

WHERE IS FACTOR 66 REFERENCED IN THE COSS:

Extra Facilities Revenue Proforma	Schedule 10
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**67    EXTRA FACILITIES-TRANS -**

WHERE IS FACTOR 67 REFERENCED IN THE COSS:

Transmission Deprec Reserve-Direct	Schedule 3
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**68    WEIGHTED CUSTOMER BASED -**

WHERE IS FACTOR 68 REFERENCED IN THE COSS:

Prod - Direct Demand Solar-Gross Plant	Schedule 2
Prod - Direct Demand Solar-Depr Reserve	Schedule 3
Prod - Direct Demand Solar-O&M	Schedule 6
Prod - Direct Demand Solar-Depr Exp	Schedule 7
Rev Related Tax-Franchise Tax - Solar	Schedule 8

## ALLOCATORS IN SUPPORTING INPUT FILES NOT USED IN THE COSS STUDY

### 1 Extra Facilities Revenue -

Step 1: Support Files Distplt and Syspk use the investment allocations from the Exfac file for direct assigned distribution plant in the distplt file and transmission plant in the syspk file.

#### WHERE USED:

- |                      |                      |
|----------------------|----------------------|
| - Transmission Plant | Syspk, TxRel tab     |
| - Distribution Plant | Distplt, Distplt tab |

### Section 3: INPUT FILES

The following files are input files for the Cost of Service Study.

**Bilrev** Entry file for the total number of bills, revenues, and KWH sales by customer rate schedule by state. DSM credits by customer rate schedule are entered here also. DSM is totaled in this file and then re-allocated among rate classes in the syspk file using Demand at Generation (Peak). This file also develops average number of customers, identifies the P&T customers and calculates the number of distribution customers. It includes allocation of O&M expense account 903 and develops the distribution allocation factors 28-29.

**Where used:** Egylos, Distplt, Syspk, Greenwood, Dmenrel, I\_Factor.

**Egylos** Calculates the energy loss factors used to gross up delivery KWH values to a generation value. Using these loss factors and KWH sales from Bilrev, this file calculates the distribution deliveries, if it is served from a 100KV line (loss group 3 and 4) or a 44KV line (loss group 5 and 6) to reflect the different loss factors for these deliveries. It then takes customer sales by class and grosses it up to a generation level.

**Where used:** Syspk, Dmenrel, Greenwood, SWPA, Distplt, I-Factor.

**ExFac** Monthly Excess Facilities revenue is collected and totaled by rate and function. Excess facilities revenue is used to calculate investment by rate class.

**Where used:** Distplt, Syspk, I\_Factor.

**Distplt** For NC, Distribution plant costs are "assigned" 3 ways (1) direct costs are identified in various input files (i.e., extra facilities), (2) The minimum system requirements are calculated by line mile then brought into I\_Factor and allocated by number of customers/bills, (3) remainder of costs are brought into I\_Factor and allocated in the COSS by coincident peak demand. Average transmission related meter cost is also calculated and direct assigned, while remaining meter costs are brought into I\_Factor and allocated in the COSS on Eng factor which is developed using number of

distribution meters (average number of distribution customers) times a meter cost in the Bills file. This file uses data from Bilrev, Exfac, Classmax and Syspk.

This file includes identification of jointly used substations, typically jointly owned with Catawba or other wholesale customers. It is used to direct assign plant (substations) to the wholesale category.

This file also has the Distribution plant costs and capital investment in detail plant account numbers 360-370. Specifically identifies the costs of plant that is associated with wholesale activity.

**Where used:** Exfac, I\_Factor.

**Hpdata** Identification of "incremental" HP data (including number of bills, revenues, KWh sales, and KW peak). It is used in the various files to move revenues, KWH, KW, etc, from applicable rate classes to a standalone HP class.

**Where used:** Bilrev, Syspk, Classmax, ExFac, Dmenrel, SWPA.

**Syspk** Enters the coincident peak at generation level for the rate classes (retail) and wholesale. Coincident peaks are calculated at (1) transmission level (including SEPA and full requirements of Catawba) which is used to allocate transmission related costs (transmission related miscellaneous revenues, transmission related plant, accumulated depreciation and depreciation expense) (2) "system" level (excluding SEPA and only including the amount provided as back stand of Catawba related deliveries) which is used to allocated production plant, accumulated depreciation and depreciation expense. Other allocations done in this file (A) DSM credits reallocated based on Demand at Generation (Peak), (B) SC PCL allocated to SC rate classes based on production plant. Other Miscellaneous Revenue are entered here and carried to Dmenrel.

**Where used:** Dmenrel, Greenwood, SWPA, Bilrev, Distplt, I\_Factor.

**Ncdpk** Contains Non-coincident peak data by rate class by month. This file's information is included in Classmax

to develop the Non-coincident demands allocator factor #4 and Distribution non-coincident demand allocator factor #3.

**Where used:** Classmax, Greenwood, Egylos.

**Classmax** This file is a collection of non-coincident peak data from the monthly Ncdpk files and HPdata. One sheet shows non-coincident peak for distribution only (allocation factor 4) which is grossed up for losses on the distribution lines only (i.e. max load placed on the distribution line), another sheet shows non-coincident peak for distribution and transmission (allocation factor 3). Ultimately the distribution only non-coincident peaks are used as an allocator for some classes of distribution plant.

**Where used:** Distplt, Greenwood, I\_Factor.

**Dmenrel** Allocation of miscellaneous other revenue, deferred debits, line losses, fuel, accumulated deferred tax-direct, reserves and cash requirement.

This file also contains wages & salaries information, charge off data for allocation of uncollectibles, allocation of interest on customer deposits, customer deposits and some general tax items.

**Where used:** Greenwood, SWPA, Bilrev, I\_Factor.

**Greenwood** This file is information related to Greenwood statistics and various allocations used in the South Carolina Study.

**Where used:** I\_Factor

**SWPA** This file uses information from Syspk, Dmenrel and Egylos file to develop the summer-winter peak information used in the NC COSS.

**Where used:** I\_Factor

**I\_factor** This file is the collection of all data to bring into the COSS.

**Where used:** COSS

COSS        This file is the accumulation of direct, allocated and input information from I\_factor.

DEC        The Unbundled file creates the individual class files separating total rate base, revenue, expenses and taxes into demand, energy and customer (DEC) related for purposes of designing rates.

The list of files in the first column below is updated by link formulas to the source files in the second column.

Files:	Source Files supply data to Files:
Exfac	Hpdata, Distplt
Bilrev	Hpdata, Dmenrel, Syspk
Egylos	Bilrev, ncdpk
Distplt	Bilrev, Exfac, Classmax, syspk, Egylos
Syspk	Bilrev, Exfac, Egylos, Hpdata
Classmax	Ncdpk, Hpdata
Dmenrel	Egylos, Syspk, bilrev, Hpdata
Greenwood	Egylos, Syspk, Bilrev, Classmax, Dmenrel, Ncdpk
SWPA	Syspk, Dmenrel, Egylos, hpdata
I_Factor	Exfac, Classmax, Distplt, Syspk, Hpdata Egylos, Dmenrel, Greenwood, SWPA, Bilrev

#### Section 4: DIRECTIONS FOR TRACING COSS ROW ENTRIES TO SOURCE FILES

To trace items from the COSS file to the supporting input files use the following steps.

Locate the row in cost of service that you want to trace.

1. Obtain the reference value in the cost of service ITEM column or in the allocators LOOKUP CODE column.
2. Open the file I\_factor.
3. Search the I\_factor file for this reference value.
4. Once the reference value is found, walk across the row related to this reference value and locate the links and related source for the data. If no link, then the input is made directly into the I\_factor file.

Note - if the "LOOKUP CODE" is not found in the I\_factor file, then the allocator is created within the main cost of service file.

For the DIRECT assignments, the same steps as listed above can be used to trace the assignment back to the supporting input file. For example, by tracing Customer Assistance Expense (using ITEM code EXCSI1) you will trace back through I\_factor to the supporting input file called Bilrev.xlsm. In this file you will find these costs are assigned using the number of average customers excluding lighting.